ATTIX5

Attix5 Pro
Server Edition

V6.0 User Manual

for Microsoft Windows

Your guide to protecting data with Attix5 Pro Server Edition.

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Instruction symbols

The following icons are used in this user manual:

The information icon precedes important information.

The example icon indicates a practical illustration of a process or procedure.

The hint icon indicates a suggestion or hint to guide or assist you with performing a task.

The warning icon precedes a warning against potential mistakes and actions that could cause critical error.

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Contents

Introduction 5
Product overview 5
1. Getting started 6
2. Installation 7
System requirements 7
Installing Attix5 Pro SE 9
Attix5 Pro SE Setup Wizard 10
3. Account setup 16
Setting up a Backup Account 16
Account Setup Wizard 17
4. Graphical User Interface (GUI) 25
Opening the Backup Client interface 26
The Client interface explained 28
Application window 28
System tray icon 38
Notifications 41
5. Backups 42
How to back up 42
Selecting data to back up 42
Determining the backup selection size 50
Exporting a selection report 51
Starting a backup manually 52
Scheduling automatic backups 53
Cancelling a backup 55
Resuming a backup 56
6. Restores 57
How to restore 57
Selecting data to restore 57
Restoring data 59
Finding files in backups 62
Restoring a backup selection 65
Restoring archived data 66
7. Logs 67
Accessing log files 67
Changing log file settings 68
8. Options and settings 69
Account and Security 70
Connections 72
Backup Schedule 74
Backup Throttle 76
Display 78

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Disk Usage 80
Performance and Limits 82
Global Filters 85
Patching 88
Mandatory Patching 91
Logging 93
Advanced Options 95
Advanced tools 99
Concurrent backup processing 99
Add network volume 99
Remote Management 101
Multiple Backup Sets 102
Health Check 105
Backup Snapshots 108
Restore Snapshots (Disaster recovery) 109
Command-line backups and restores 110
Profiling 112
Microsoft NTFS Change Journal use 113
9. Plug-ins 114
Email Notification plug-in 115
System State plug-in 117
Installing and configuring the System State plug-in 117
System State restore process 119
10. Reference 120
Keyboard shortcuts and hotkeys 120

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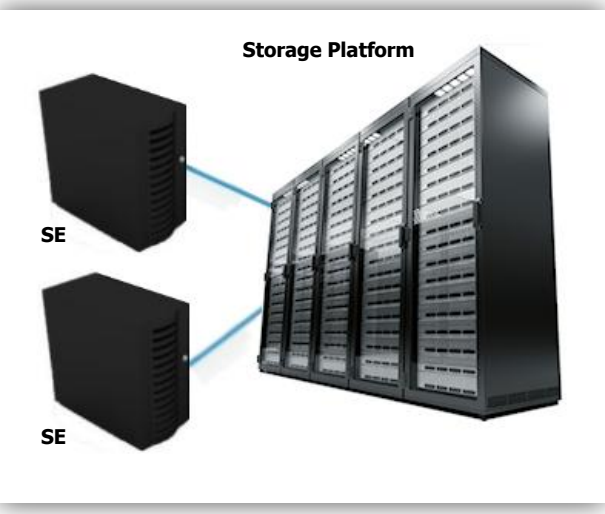
Introduction

Congratulations on choosing Attix5 Pro Server Edition. Attix5 Pro minimises risk, maximises productivity and allows businesses to regain control of their most valuable asset - their data.

For technical support, please go to **Help > About Attix5 Pro SE**, and then use the contact details provided.

Product overview

With Attix5 Pro Server Edition (SE), data stored on servers and databases can be backed up to a Storage Platform quickly, securely and automatically.



The following diagram illustrates the scenario:

Files and folders stored on one or more servers running SE can be backed up to a Storage Platform. In the event of data loss or corruption on the server, you can retrieve data from the Storage Platform and restore it to the original or another server in just a few easy steps.

A Backup Administrator can manage the entire backup environment (Backup Clients and the Storage Platform) remotely, using the Attix5 Pro Storage Platform Console. For more information, please refer to the **Attix5 Pro Storage Platform Console User Manual**.

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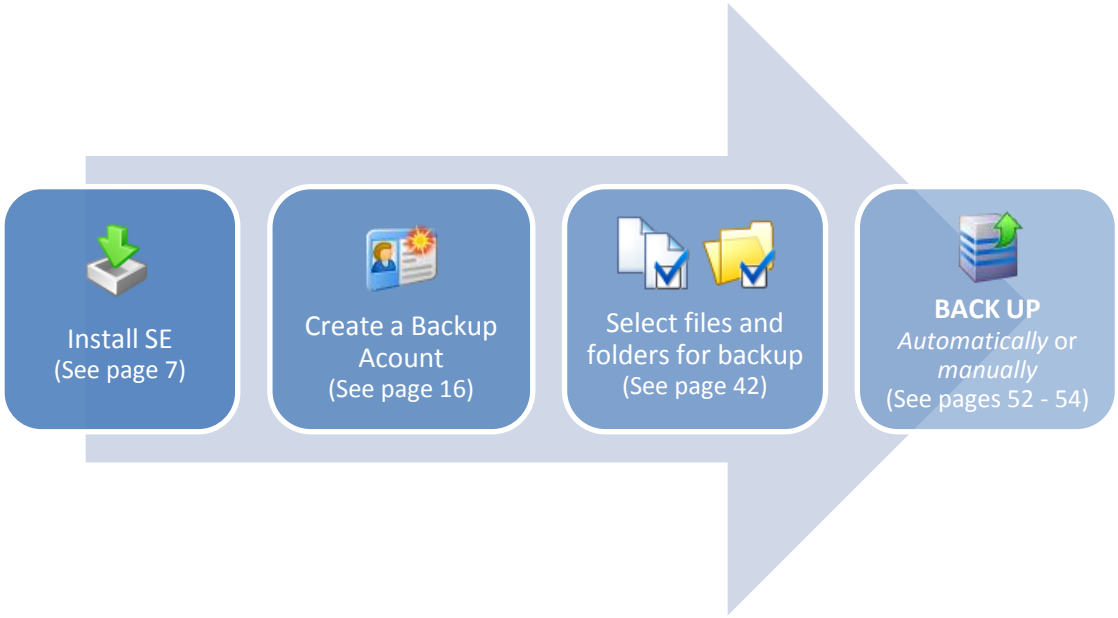
1. Getting started

Enabling manual or automatic backups is easy with Attix5 Pro Server Edition:



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2. Installation

Below are the system requirements for Attix5 Pro Server Edition.

Note: For the latest system requirements and compatibility information, please refer to the Requirements-Compatibility.pdf (provided with each release of the Attix5 Pro software).

System requirements

Operating System

SE is available for the following Microsoft operating systems:

- Windows Server 2008 (Incl. Small Business Server bundles)
- Windows Server 2003 (Incl. Small Business Server bundles)

Processor & Memory

Recommendation table		
Amount of data protected	**Recommended processor**	**Recommended memory (Above operating system requirements)**
Less than 200 GB	Pentium 4, Entry level	1 GB
200 - 500 GB	Pentium 4, 2.0 GHz	1 GB
500 GB - 1 TB	Dual Xeon, 3 GHz+	2 GB

Disk Space

- **Required**: 50 MB plus space for local cache.

  Note: Please ensure that the drive on which the Backup Client will be installed has enough free space to store copies of the selected files.

- **Recommended:** Amount of free space equal to the Backup Account limit if Binary Patching is enabled. The space requirement for Delta Blocking is considerably less. For more information, see *Patching* in Chapter 5, "Backups."

  Example: To back up 10 GB of data, at least 10 GB of available free space is required on the drive containing the working folders.

  Note: Plug-ins may also require additional working space. For more information, please refer to the applicable plug-in documentation.

  StorageServer: The local cache can be as large as the total size of all files included in the backup selection.

  Example: A 10 GB inclusion may require up to 10 GB free space for the cache.

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Database (using Database plug-in): Space is required for the data dump (which can be as large as the database) and as well the cache (which is the compressed version of the database). Assuming 1:2 compression on a 10 GB database you are recommended to have 15 GB (10 GB for the dump and 5 GB for the cache) free space available. Temporary working space is also required for subsequent backups; the requirement will be less than 5 GB in the above-mentioned example.

Other

- **Minimum video requirements:** 800 x 600 Resolution, 256 colours
- **Virtual memory:** Double the amount of RAM, with a minimum of 512 MB (Total for all disk volumes)

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Installing Attix5 Pro SE

The SE MSI file contains pre-configured information to make installing SE quick and easy. For more information on creating MSI files and launching them from the **Run** Command, please refer to the **Attix5 Pro Storage Platform Console User Manual**.

Note: *The options available during the installation process depend on the settings enabled by the administrator when the MSI file was created. These options range from advanced install settings to specifying the install location. The default install path is:* `C:\Program Files\Attix5 Pro SE`.

Pre-installation warnings:

- *If running antivirus software, please ensure that all Attix5 Pro folders are excluded from antivirus scans to avoid data corruption.*
- *Both antivirus software scans and backup processes are resource-intensive. It is advised not to run a backup and virus scan at the same time as this will significantly decrease machine performance.*
- *Please ensure that you run the MSI file suited to the installed operating system (i.e. 32-bit or 64-bit). The filename should indicate the target platform. If unsure, please contact your Backup Administrator.*

To install Attix5 Pro SE:

1. Run the MSI file.
2. In the Attix5 Pro SE Setup Wizard that appears, follow the steps as described below.

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Attix5 Pro SE Setup Wizard

The Attix5 Pro SE Setup Wizard typically consists of five steps to guide you through the Setup task in a simple, step-by-step manner. These steps also make it possible to undo previous operations by navigating backward.

Notes:

- *Some of the settings described below may have been removed when the MSI was created. Furthermore, the wizard may contain additional steps. Please read each window carefully before continuing.*
- *If you receive a Windows User Account Control message, asking you if you wish to allow the Attix5 Pro program to make changes to the computer, click* ***Yes*** *to proceed.*

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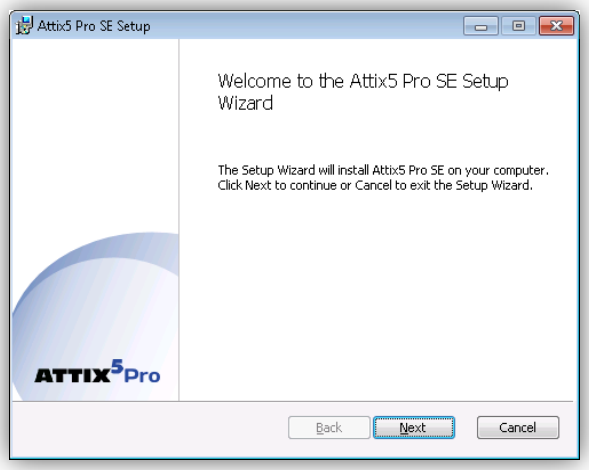
Step 1 of 5: Start the Setup Wizard

To start the Setup Wizard:

Click **Next**.


Attix5 Pro SE Setup
Welcome to the Attix5 Pro SE Setup Wizard
The Setup Wizard will install Attix5 Pro SE on your computer. Click Next to continue or Cancel to exit the Setup Wizard.
ATTIX5 Pro
Back
Next
Cancel

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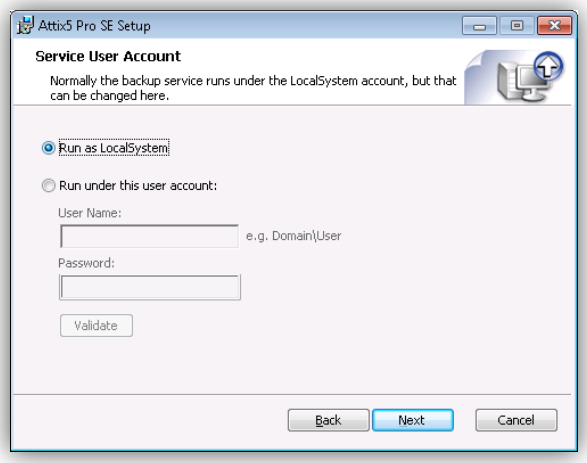
Step 2 of 5: Specify a Windows user account

To enable the Backup Client to read all files that must be backed up, it may be necessary for the Backup Client service to run under a specific Windows account.



To specify which Windows account should run the backup service:

- Select **Run as LocalSystem**.
- Alternatively, specify a specific Windows user account:
    1. Select **Run under this user account**.
    2. In the **User Name** box, type the Windows user name for the account.
    3. In the **Password** box, type the Windows user account password.
    4. Click the **Validate** button.
    5. Once the Windows user account has been validated, click **Next**.

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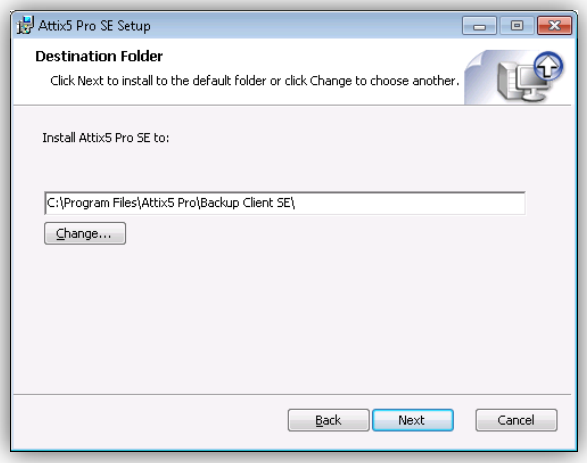
Step 3 of 5: Specify an install location

To specify a destination for the SE application files and folders:

- Click **Next** to accept the default destination folder and continue to the next wizard step.
- Alternatively, specify a new destination folder:
    1. Click the **Change** button.
    2. Browse to the folder.
    3. Click **OK**.
    4. Click **Next** to continue to the next wizard step.



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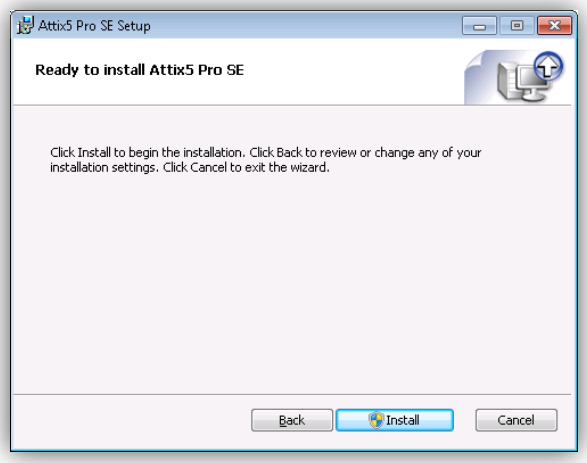
Step 4 of 5: Begin the installation

Once all the settings are configured, the wizard is ready to begin the installation.

To begin the SE installation:

Click **Install**.


Attix5 Pro SE Setup
Ready to install Attix5 Pro SE
Click Install to begin the installation. Click Back to review or change any of your installation settings. Click Cancel to exit the wizard.
Back
Install
Cancel

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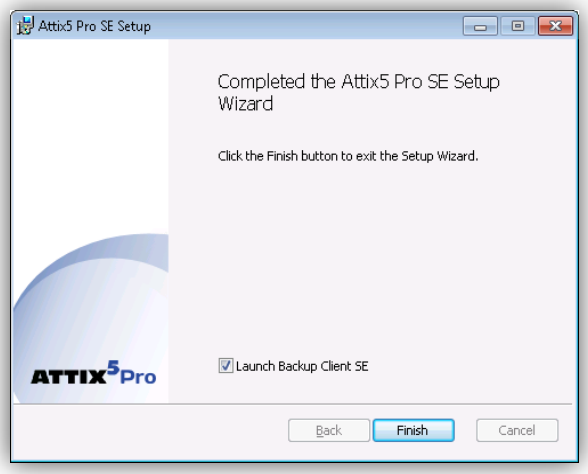
Step 5 of 5: Exit the Setup Wizard

The last step of the wizard presents the option to launch the Backup Client.



To launch the Backup Client immediately after the Setup Wizard:

1. Ensure that the **Launch Backup Client SE** check box is selected.
2. Click **Finish**.

Notes:

- *If the MSI file is being run from the same location as the plug-in installer file, the Setup Wizard will give you the option to launch the plug-in installer before launching the Client. Select the **Launch Plug-in Installer** check box to run it immediately after the Attix5 Pro SE Setup Wizard. For more information about plug-ins, please refer to the Attix5 Pro Server Edition Plug-ins user manual.*
- *Before the Plug-in Installer launches, a **User Account Control** dialog box may appear, asking you if you wish to allow the Plug-in Installer to make changes to the computer. Click **Yes** to run the installer.*

If you selected the **Launch Backup Client SE** check box in the last step of the Attix5 Pro SE Setup Wizard, the Backup Client will open automatically upon clicking **Finish** and the **Backup Account Setup Wizard** will launch, enabling you to create a Backup Account. Follow the wizard steps as described in Chapter 3, "Account setup."

If you opted not to launch the Backup Client immediately, you can open the Client interface at a later stage via the **Start** menu or by following any of the instructions listed under *Opening the Backup Client* in Chapter 4, "Graphical User Interface".

Note: The Account Setup Wizard will launch when you open the Backup Client for the first time. See "Account Setup" below.

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3. Account setup

To back up or restore data using the Backup Client, a Backup Account is required.

Setting up a Backup Account

If you selected the **Launch Backup Client SE** check box in the last step of the Attix5 Pro SE Setup Wizard (see *The Attix5 Pro SE Setup Wizard* in Chapter 2, "Installation"), the Backup Client will run and display the Backup Account Wizard automatically. Use this wizard to set up a Backup Account by following the steps as described below.

If the **Launch Backup Client SE** check box was not selected in the last step of the SE Setup Wizard, the Account Setup Wizard will launch when the Backup Client is opened for the first time (for more information, see *Opening the Backup Client* in Chapter 4, "Graphical User Interface").

*Note: To run the Account Setup Wizard at any other time: On the **Tools** menu, click **Account Setup Wizard.** In the warning box that appears, click the **Run Account Setup Wizard** button and follow the instructions below from **Step 2** (below) onwards.*

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Account Setup Wizard

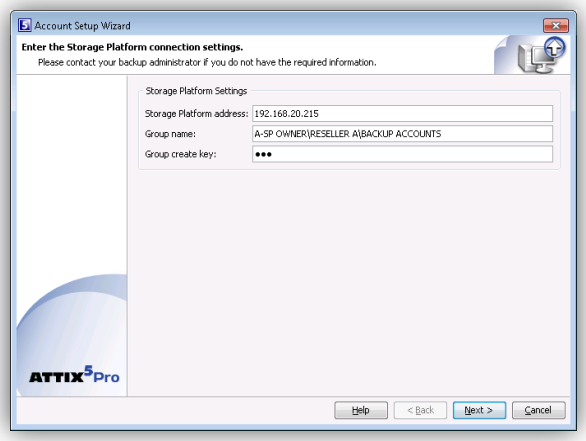
The Account Setup Wizard typically consists of eight steps to guide you through the Setup task in a simple, step-by-step manner. These steps also make it possible to undo previous operations by navigating backward.

> ***Note:*** *Some of the settings encountered in the wizard may have been removed when the MSI was created. Furthermore, the wizard may contain additional steps. Please read each window carefully before continuing.*

Step 1 of 8: Specify Storage Platform connection settings

> ***Note:*** *This step displays when the wizard is run directly after the SE Client installation. If accessing the wizard at a later stage (via the **Tools** menu), this step will not display as the Storage Platform settings will already have been configured.*

To specify the Storage Platform connection settings:



1. In the **Storage Platform address** box, type the IP address or DNS name of the Storage Platform where the Backup Account resides.
2. In the **Group name** field, specify which Backup Group the Account belongs to.

> ***Note:*** *Type the Group name in relation to any Collections it may belong to.*

> **Example:**
> `COLLECTIONA\COLLECTIONB\GROUP`

3. In the **Group create key** field, specify the preconfigured Group create key for the applicable Group. If you do not have access to this key, please contact your Storage Platform administrator.

   > ***Note:*** *This key is case sensitive.*

4. Once all the correct settings have been entered, click **Next**.

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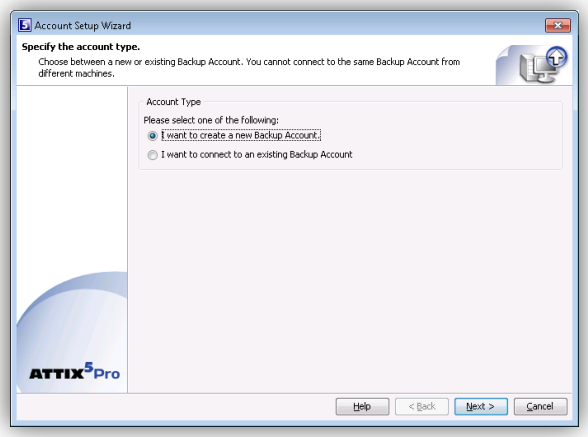
Step 2 of 8: Create or connect to a Backup Account

Notes:

- *This wizard step is typically the first to be displayed if you access the wizard via the Tools menu.*
- *You can select I want to connect to an existing Backup Account to:*
  - *Connect to an Account that has been opened for use by this computer.*
  - Reconnect to an Account to recover data from the computer that had previously backed up to this Account.

To create a new Backup Account:

1. Select **I want to create a new Backup Account.**
2. Click **Next**.


Account Setup Wizard
Specify the account type.
Choose between a new or existing Backup Account. You cannot connect to the same Backup Account from different machines.
Account Type
Please select one of the following:
I want to create a new Backup Account.
I want to connect to an existing Backup Account
ATTIX5 Pro
Help
< Back
Next >
Cancel

To connect to an existing account:

1. Select **I want to connect to an existing Backup Account**.

   Warning: *Different servers cannot back up to the same Backup Account. A separate Backup Account needs to be created for each server.*

2. Click **Next** to continue.

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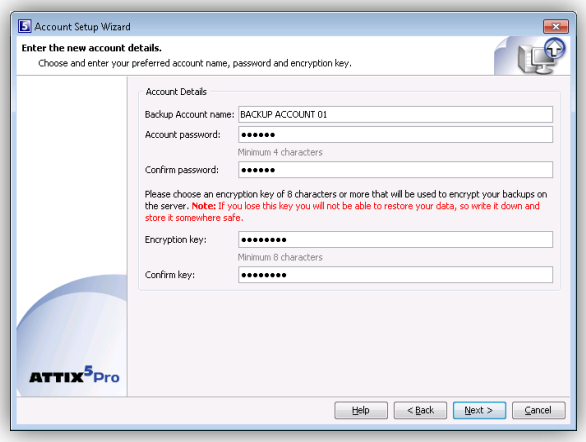
Step 3 of 8: Specify Account details

Depending on the option you selected in the previous step, you will either be prompted to specify new Account details or to supply the already configured details of the existing Account.


Account Setup Wizard
Enter the new account details.
Choose and enter your preferred account name, password and encryption key.
Account Details
Backup Account name: BACKUP ACCOUNT 01
Account password:
Minimum 4 characters
Confirm password:
Please choose an encryption key of 8 characters or more that will be used to encrypt your backups on the server. Note: If you lose this key you will not be able to restore your data, so write it down and store it somewhere safe.
Encryption key:
Minimum 8 characters
Confirm key:
ATTIX5 Pro
Help
< Back
Next >
Cancel

To specify new Account details:

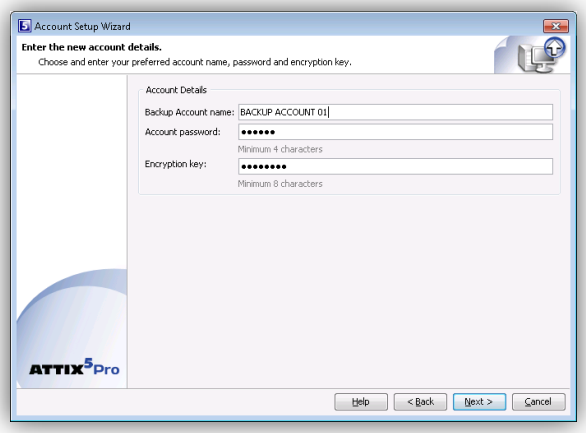
1. In the **Backup Account name** box, type an Account name that consists of a minimum of 4 characters.
2. In the **Account password** box, type a password that consists of a minimum of 4 characters.
3. In the **Confirm password** box, repeat the Account password entered in the **Account password** box above.
4. In the **Encryption key** box, type an encryption key that consists of a minimum of 8 characters.

   Warning: *Disaster recovery is not possible without the encryption key. Please ensure that this key is kept in a safe place. THE ENCRYPTION KEY IS NOT STORED ON THE STORAGE PLATFORM AND CANNOT BE RECOVERED OR RESET IF LOST.*

5. Click **Next**.

When connecting to an existing Account:

1. In the **Backup Account name** box, type the Account name.
2. In the **Account password** box, type the Account password.
3. In the **Encryption key** box, type the encryption key chosen when the Backup Account was created.



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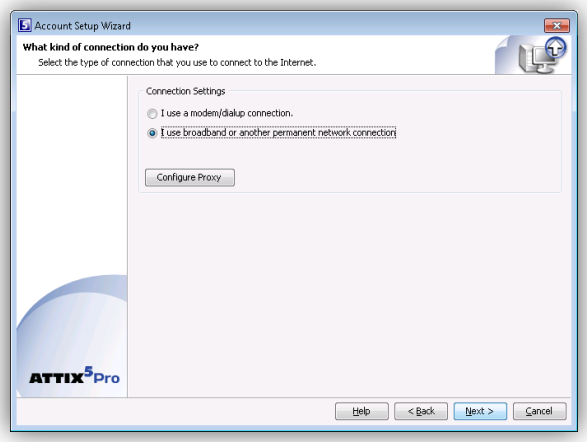
Step 4 of 8: Specify connection settings

To specify the connection settings:


Account Setup Wizard
What kind of connection do you have?
Select the type of connection that you use to connect to the Internet.
Connection Settings
I use a modem/dialup connection.
I use broadband or another permanent network connection
Configure Proxy
ATTIX5 Pro
Help
< Back
Next >
Cancel

1. In the Connection Settings area, select **I use broadband or another permanent network connection**.
2. If a proxy server will be used:
   2.1. Click the **Configure Proxy** button.
   2.2. In the **Proxy Setup** dialog box that appears, select a proxy type.
   2.3. If **Use SOCKSv5 Proxy** or **Use HTTP Proxy** is selected, fill in the **Proxy Host** and **Proxy Port** boxes.
   2.4. If login details are required, select the **Proxy server requires authentication** check box and type the username and password in the boxes provided.
   2.5. Click **OK** to close the **Proxy Setup** dialog box.
3. Click **Next** to move to the next step in the wizard.

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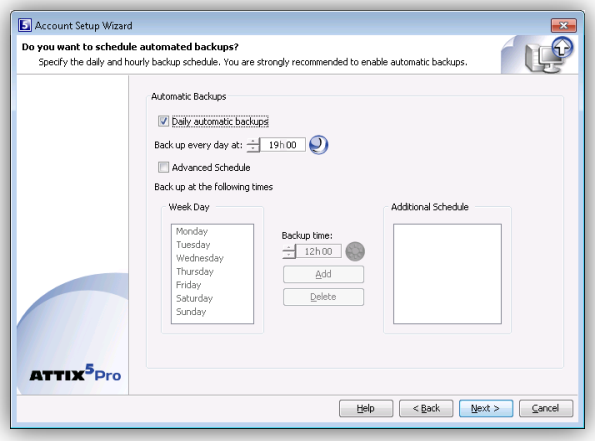
Step 5 of 8: Schedule backup process

Attix5 Pro can run backups on included files and folders either upon request (manually) or automatically. This step enables you to set up a backup schedule.

Tip: It is advised to back up at night when the server is running and the Backup Client is not in use. The server must be switched on at the time(s) specified for scheduled backups, but the Windows user does not need to be logged in.



To configure the Backup Client to run only manual backups:

1. Clear the **Daily automatic backups** check box.
2. Click **Next** to move to the next step in the wizard.

Warning: This option is not recommended. If an automated backup schedule is not created, backups will have to be run manually. Enabling automatic backups is strongly advised.

To schedule daily automatic backups:

1. Select the **Daily automatic backups** check box.
2. In the **Back up every day at** box, specify a backup time.
3. Click **Next** to move to the next step in the wizard or schedule additional advanced backups as described below.

To schedule advanced backups:

1. Select the **Advanced Schedule** check box.
2. In the Week Day area, select a day on which a backup should be initiated.
3. Specify the time in the **Backup time** box.
4. Click the **Add** button to add the day and time to the **Additional Schedule** box.
5. Repeat the steps above until you have added all desired schedules to the **Additional Schedule** box.
6. Click **Next** to move to the next step in the wizard.

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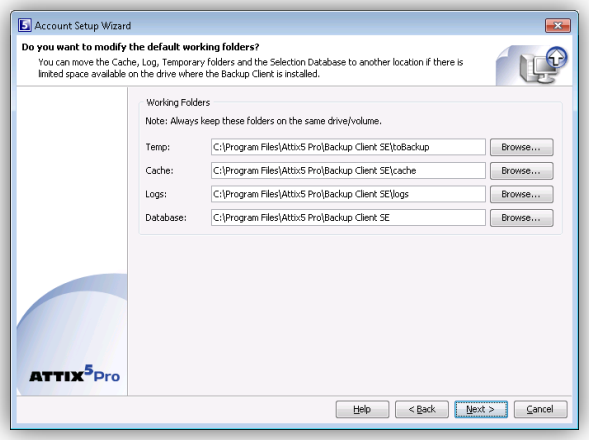
Step 6 of 8: Specify working folder locations

Under normal circumstances, the default **Temp**, **Cache**, **Logs** and **Database** folder locations can be accepted and you can click **Next** without making any modifications. If, however, the drive on which the Backup Client is installed has limited space available, you can move the folders and selection database to another location.


Account Setup Wizard
Do you want to modify the default working folders?
You can move the Cache, Log, Temporary folders and the Selection Database to another location if there is limited space available on the drive where the Backup Client is installed.
Working Folders
Note: Always keep these folders on the same drive/volume.
Temp:
C:\Program Files\Attix5 Pro\Backup Client SE\toBackup
Browse...
Cache:
C:\Program Files\Attix5 Pro\Backup Client SE\cache
Browse...
Logs:
C:\Program Files\Attix5 Pro\Backup Client SE\logs
Browse...
Database:
C:\Program Files\Attix5 Pro\Backup Client SE
Browse...
ATTIX5 Pro
Help
< Back
Next >
Cancel

> ***Warning:*** *Please ensure that these folders are located on a drive with sufficient free space.*

To change the temp, cache, logs and/or database folder locations:

1. Click the **Browse** button next to the appropriate box (e.g. **Temp**), and then select a different location for that folder.
2. Repeat step 1 above until all folder locations are correctly specified.
3. Click **Next** to continue with the installation process.

> ***Warning:*** *The **Cache** and **Temp** folders must reside on the same drive/volume.*

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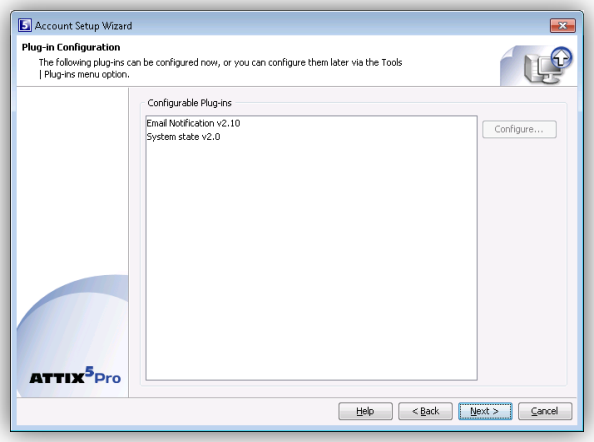
Step 7 of 8: Specify plug-in configuration



Attix5 Pro V6.0 installs with Email notification and System state plug-ins by default. In this step, you can configure these plug-ins or accept their default configuration and proceed to the next step in the wizard.

To configure a plug-in:

1. In the Configurable plug-ins list, click the plug-in name.
2. Click the **Configure** button.
3. Configure the settings as required.
   (For more information on configuration options, see Chapter 9, “Plug-ins”.)
4. Click **OK** to close the dialog box and return to the wizard.
5. Click **Next** to continue to the next step in the wizard.

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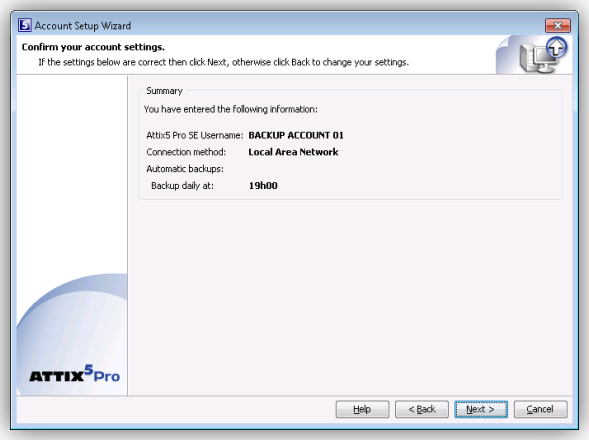
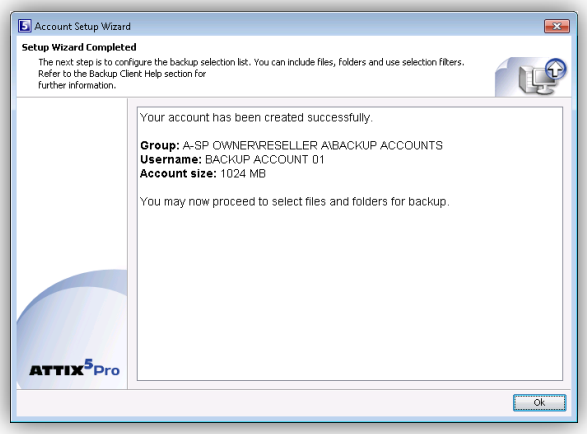
Step 8 of 8: Confirm configuration and exit the wizard

In the final step of the Account Setup Wizard, a Summary screen displays a list of the configured settings.


Account Setup Wizard
Confirm your account settings.
If the settings below are correct then click Next, otherwise click Back to change your settings.
Summary
You have entered the following information:
Attix5 Pro SE Username: BACKUP ACCOUNT 01
Connection method: Local Area Network
Automatic backups:
Backup daily at: 19h00
Help
< Back
Next >
Cancel

To confirm the Setup information:

1. Read and verify that the information is correct, and then click **Next**.
2. The Backup Client will connect to the Storage Platform and configure the Backup Account. A message will be displayed to confirm that the Account was set up successfully.
3. Click **OK** to close the message box.


Account Setup Wizard
Setup Wizard Completed
The next step is to configure the backup selection list. You can include files, folders and use selection filters.
Refer to the Backup Client Help section for
further information.
Your account has been created successfully.
Group: A-SP OWNER\RESELLER A\BACKUP ACCOUNTS
Username: BACKUP ACCOUNT 01
Account size: 1024 MB
You may now proceed to select files and folders for backup.
Ok

The Setup Wizard Completed screen will confirm the Account creation/connection.

Now that a Backup Account has been configured/you have connected to an Account on the Storage Platform, you can select the files and folders you wish to back up.

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4. Graphical User Interface (GUI)

You can use the Graphical User Interface (GUI) to:

- Select files for backup
- Launch backups
- Schedule automatic backups
- Find files in previous backups
- Restore files and folders from previous backups

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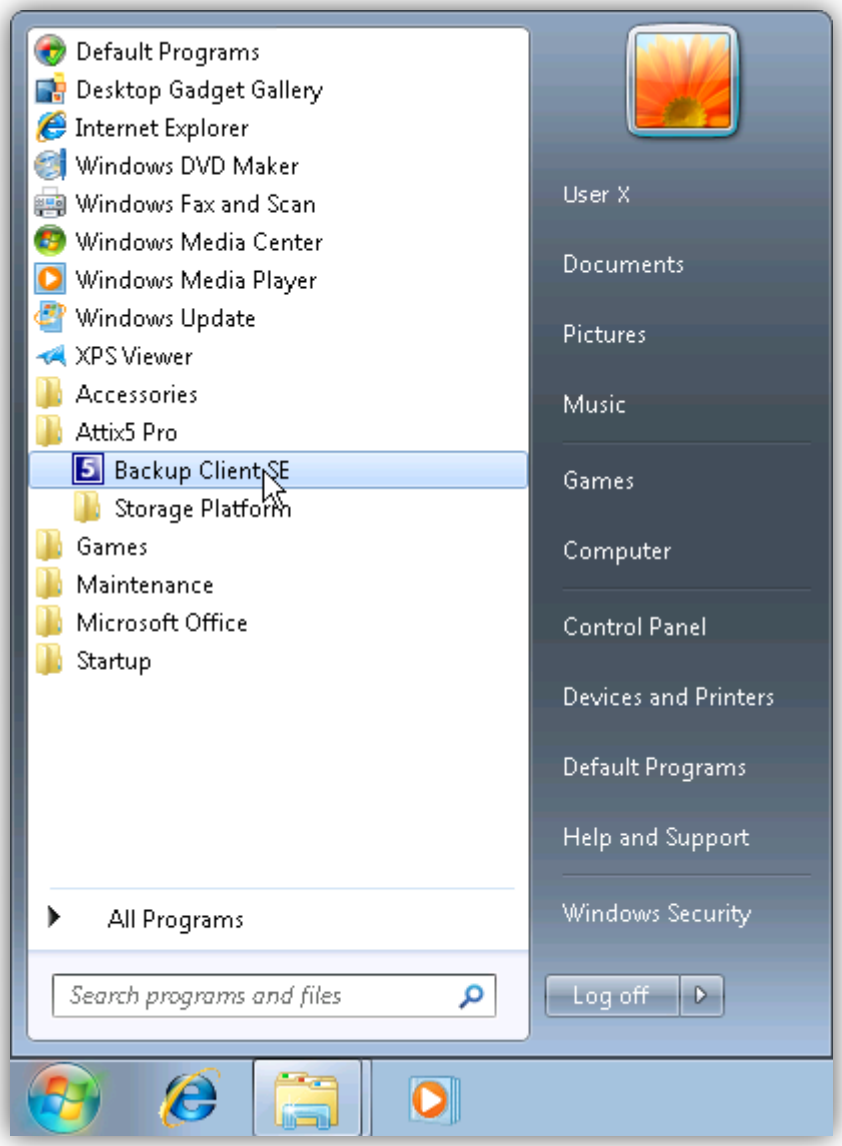
Opening the Backup Client interface

To open the SE Client interface:

On the **Start** menu, point to **All Programs**, point to **Attix5 Pro**, and then click **Backup Client SE**.



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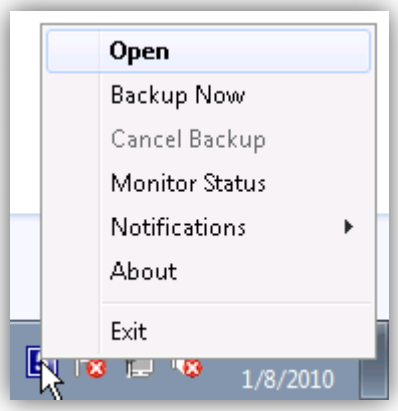
Alternatively, if the Client interface is closed but the service is still running (if the 5 icon displays in the system tray), double-click the Attix5 Pro icon or right-click it, and then click **Open**:



Note: The first time you open the Backup Client, the Account Setup Wizard launches automatically. For more information on creating a Backup Account, see Chapter 3, "Account setup."

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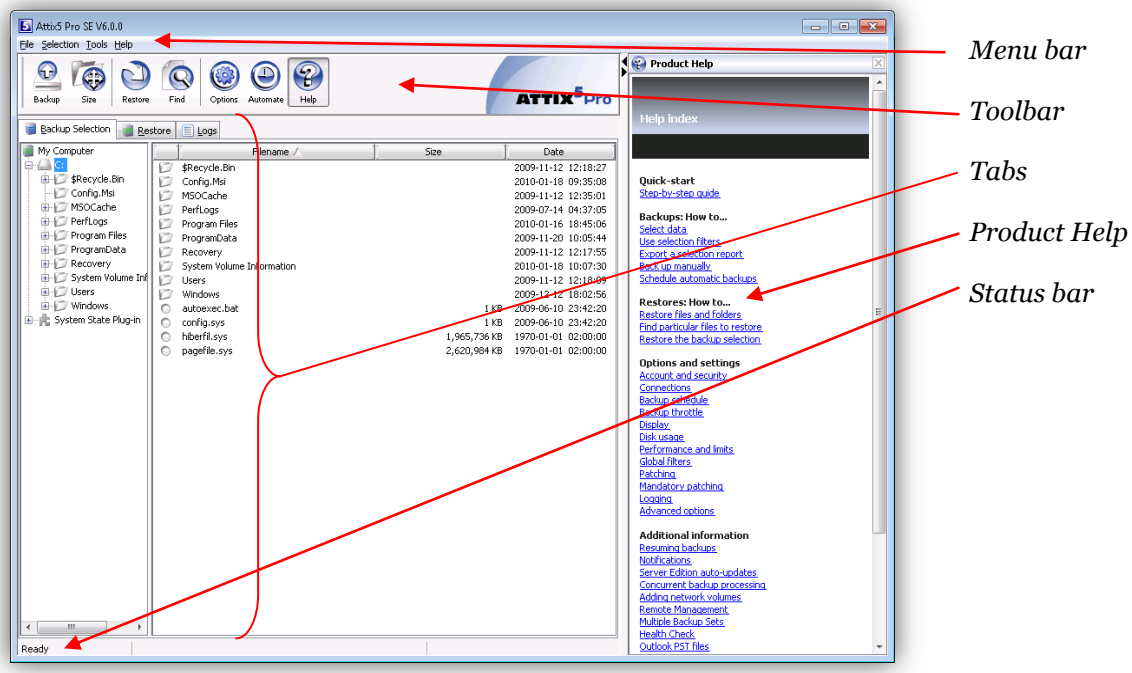
The Client interface explained

You can manage and monitor backups using the Backup Client application window, the system tray icon or the notification bubbles that appear when certain processes occur. Below are descriptions of each of these items and the options they provide.

Application window

The Backup Client application window contains the following areas:



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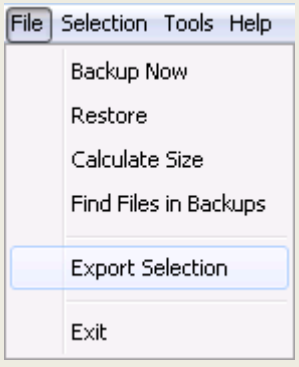
Menu bar and toolbar buttons

All Backup Client functions can be performed from the menu bar. Shortcuts to the most commonly used menu bar functions are also available on the toolbar and right-click menus.

Menu bar

Each menu on the menu bar contains one or more options. The tables below describe the options available.

File menu		
Option	**Click the option to...**	**Button**
Backup Now	Initiate a Backup immediately.	
Restore	Switch to the Restore view in the Client. *Tip: For faster access to the Restore view, click the **Restore** tab instead of using the **File** menu.*	
Calculate Size	Determine the total size of the data included in the backup selection. For more information, see *Determining the backup selection size* in Chapter 5, "Backups."	
Find Files in Backups	Access the **Find Files in Backups** dialog box. This box enables you to search for particular files in your backups. For more information, see *Finding files in backups in Chapter 6, "Restores."*	
Export Selection	Export a list of all backup inclusions and exclusions to an html file for future reference. For more information, see Exporting a selection report in Chapter 5, "Backups."	

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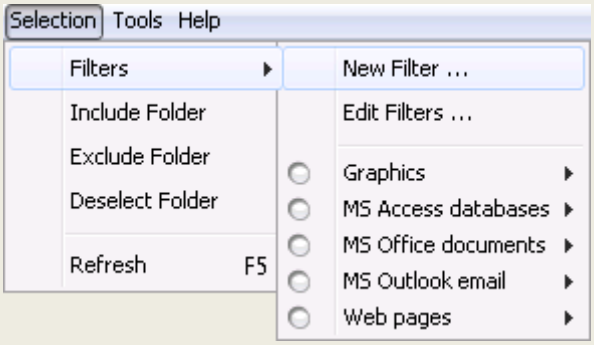
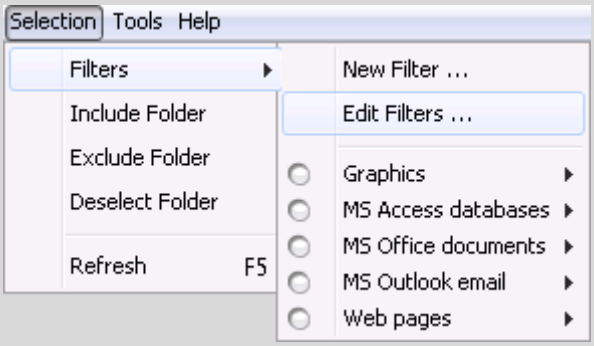
File menu continued...		
Option	**Click the option to...**	**Button**
Exit	Close the Backup Client application window. *Tip: You can re-open the Client window at any time via the Windows **Start** menu or by double-clicking the icon in the system tray.*	

Selection menu		
Option	**Click the option to...**	**Menu**
Filters > New Filter	Create a new filter to automate inclusions or exclusions based on file type. For more information, see *Using filters* in Chapter 5, "Backups."	
Filters > Edit Filters	Edit existing filters. For more information, see *Using filters* in Chapter 5, "Backups."	

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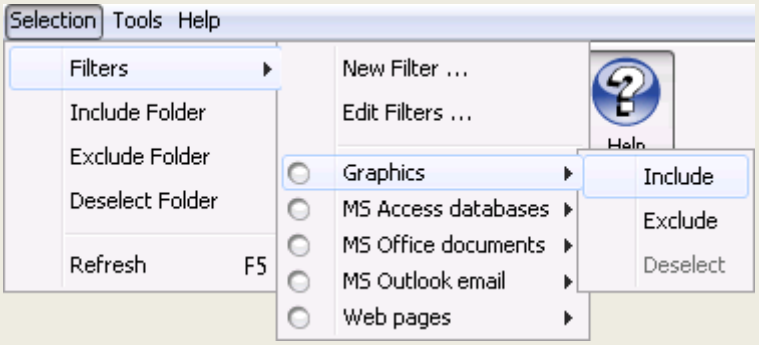
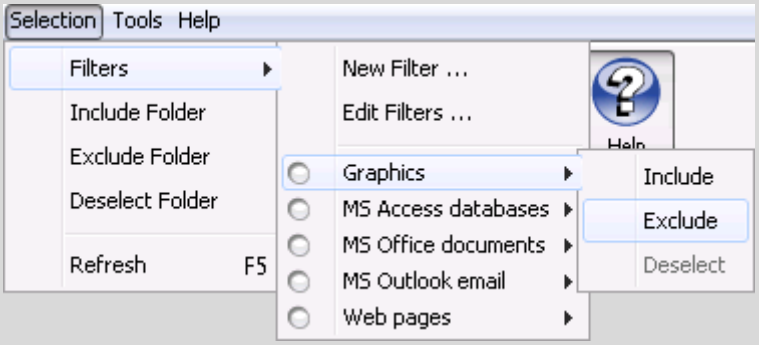
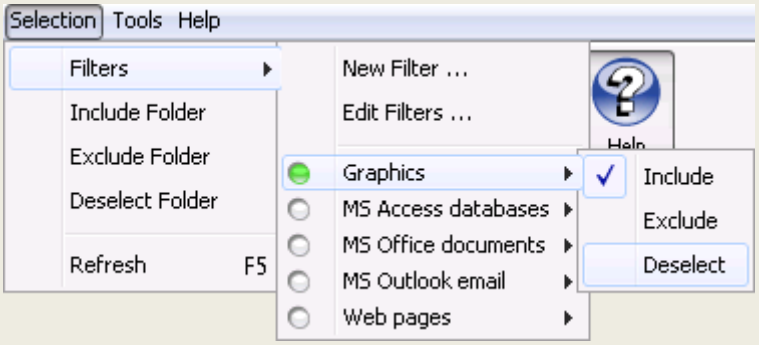
Selection menu continued...		
Option	**Click the option to...**	**Menu**
Filters > [filter] > Include	Include all files in the selected folder that match the filter's criteria. For more information, see *Using filters* in Chapter 5, "Backups."	
Filters > [filter] > Exclude	Exclude all files in the selected folder that match the filter's criteria. For more information, see *Using filters* in Chapter 5, "Backups."	
Filters > [filter] > Deselect	Clear the selected folder of any filters currently applied to it. For more information, see *Using filters* in Chapter 5, "Backups."	

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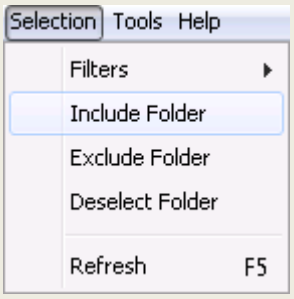
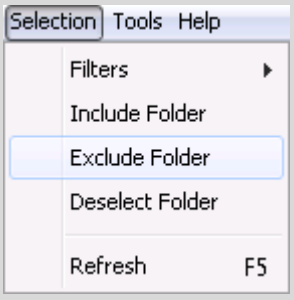
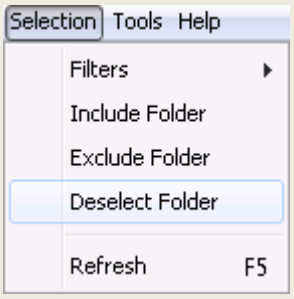
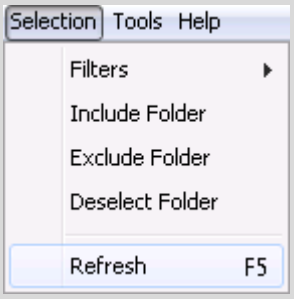
Selection menu continued...		
Option	**Click the option to...**	**Menu**
Include Folder	Include the selected folder for backup.	
Exclude Folder	Exclude the selected folder from the backup selection.	
Deselect Folder	Clear the selected folder of any inclusions or exclusions.	
Refresh	Refresh the selection being displayed.	

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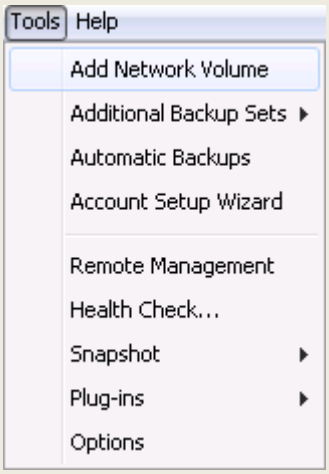
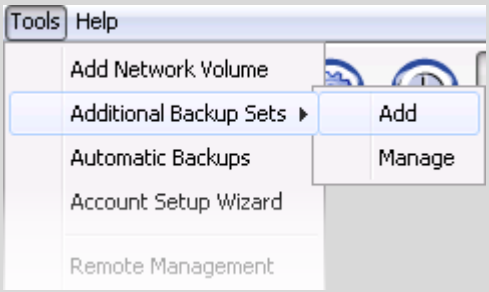
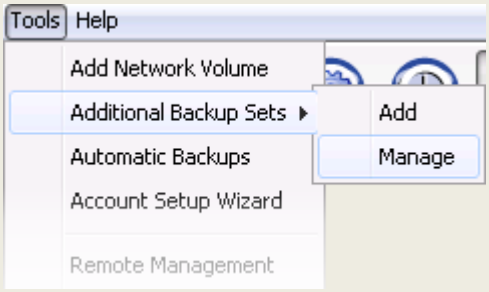
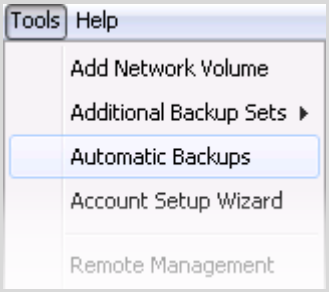
Tools menu		
Option	**Click the option to...**	**Menu**
Add Network Volume	Add a network volume. For more information, see *Add network volume* in Chapter 8, "Options and settings."	
Additional Backup Sets > Add	Create additional backup sets. This enables you to have separate backup selections that you can recover as separate sets of files. For more information, see *Multiple Backup Sets* in Chapter 8, "Options and settings."	
Additional Backup Sets > Manage	Access the Backup Schedule page in the **Options and Settings** dialog box. Using the settings in this dialog box, you can manage the schedule(s) of your backup sets. For more information, see *Multiple Backup Sets* in Chapter 8, "Options and settings."	
Automatic Backups	Access the Backup Schedule settings in the **Options and Settings** dialog box. Configure the settings in the Automatic Backups area to set up one or more automatic backups. For more information, see *Scheduling automatic backups* in Chapter 5, "Backups."	

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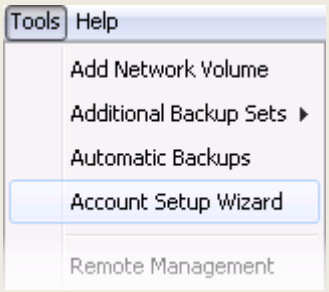
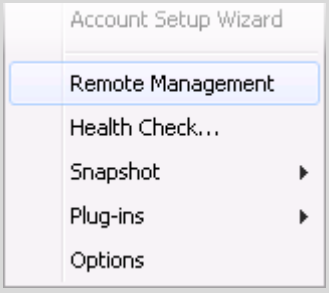
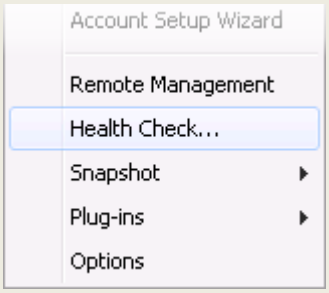
Tools menu continued...		
Option	**Click the option to...**	**Menu**
Account Setup Wizard	Launch the Account Setup Wizard, which enables you to change the Backup Account settings. For more information, see *Account Setup Wizard* in Chapter 3, "Account setup."	
Remote Management	Access the **Remote Management Settings** dialog box. Using the settings available, you can enable Remote Management of the Client via the SP Console. For more information, see *Remote Management* in Chapter 8, "Options and settings."	
Health Check	Access the **Health Check** dialog box. Performing a Health Check enables you to highlight possible issues. For more information, see *Health Check* in Chapter 8, "Options and settings."	
Snapshot > Export Backup Snapshot	Access the **Export Backup Snapshot** dialog box, which enables you to configure the next backup to be a Snapshot backup to a specific location. For more information, see *Backup Snapshots* in Chapter 8, "Options and settings."	
Snapshot > Import Restore Snapshot	Access the **Import Backup Snapshot** dialog box, which enables you to configure Restore Snapshot settings. For more information, see *Restore Snapshots* in Chapter 8, "Options and settings."	

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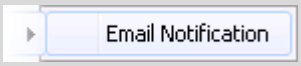
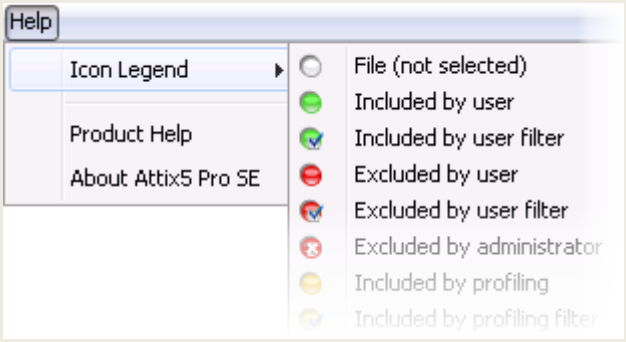
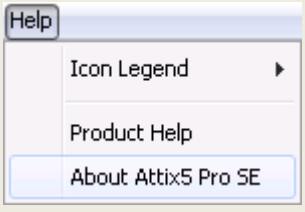
Tools menu continued...		
Option	**Click the option to...**	**Menu**
Plug-ins > Email Notification	Access the **Email Notification settings** dialog box, which you can use to enable/disable Email notification and configure its settings. For more information, see *Email Notification plug-in* in Chapter 9, "Plug-ins."	
Options	Opens the **Options and Settings** dialog box that enables you to modify a range of Client settings. For more information, see Chapter 8, "Options and settings."	

Help menu		
Option	**Click the option to...**	**Menu/Button**
Icon Legend	Access a list of the icons used in the Attix5 Pro Client and their meanings.	
Product Help	Access the Product Help.	
About Attix5 Pro	Access the product information and support contact details.	

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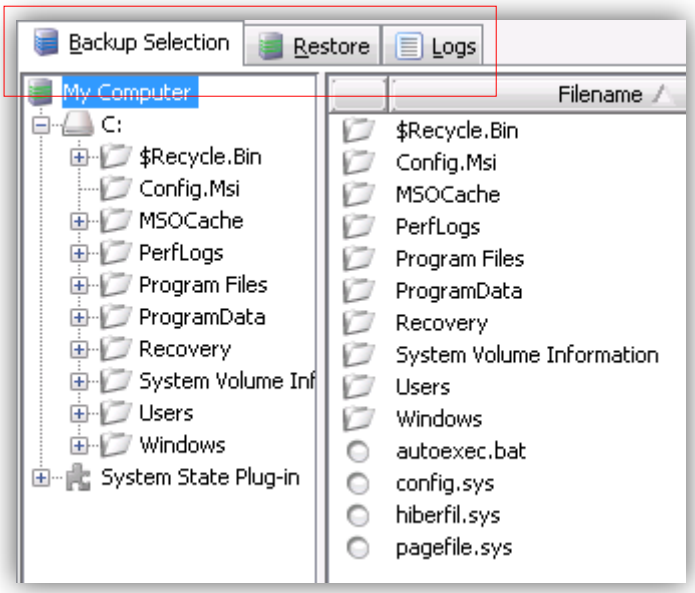
Tabs

There are three tabs available in the Backup Client:

- **Backup Selection:** This tab displays the files and folders on the computer, enabling you to select the items to be backed up. For more information, see *Selecting data to back up* in Chapter 5, "Backups."
- **Restore:** Use this tab to browse previous backups and restore files and folders.
- **Logs:** Use this tab to view detailed information on each backup and restore.

> ***Tip:*** *In the right-hand pane on the **Backup Selection** and **Restore** tabs, you can click any of the column headings to sort the list according to their values.*



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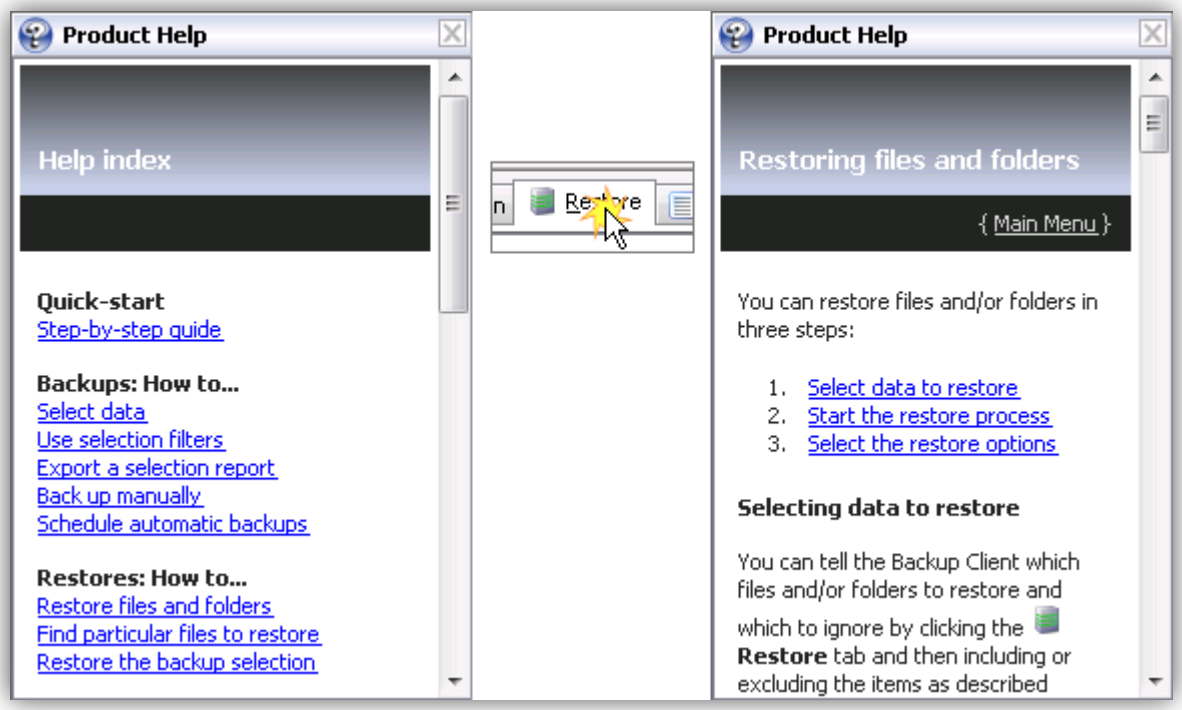
Product Help

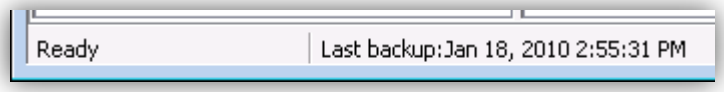
You can access the Backup Client Help by clicking **Product Help** on the **Help** menu. Alternatively, click the **Help** button on the toolbar.

As you navigate the Client, the Help pane will display information relevant to the selected tab.


Product Help
Help index
Quick-start
Step-by-step guide
Backups: How to...
Select data
Use selection filters
Export a selection report
Back up manually
Schedule automatic backups
Restores: How to...
Restore files and folders
Find particular files to restore
Restore the backup selection
Restore
Product Help
Restoring files and folders
{ Main Menu }
You can restore files and/or folders in three steps:
1. Select data to restore
2. Start the restore process
3. Select the restore options
Selecting data to restore
You can tell the Backup Client which files and/or folders to restore and which to ignore by clicking the Restore tab and then including or excluding the items as described

Status bar

This area displays the date and time of the last backup performed by the system.



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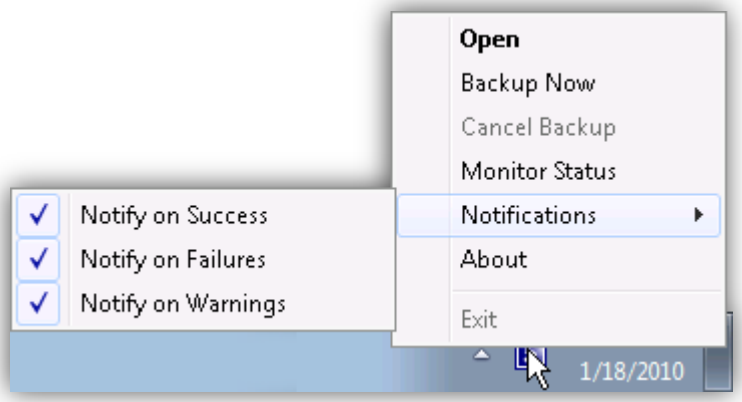
System tray icon

The System tray icon indicates the backup activity status and can be used to perform various tasks.

An animated icon indicates that the service is busy with a backup process.

Right-click the system tray icon to view the menu options available.



Note: *On the Windows 7 operating system, the system tray icon is hidden by default. To display the icon, click the* ***Show hidden icons*** *arrow, click* ***Customize****. In the dialog box that appears, expand the* ***Behaviours*** *drop-down next to* ***SERunner.exe****, and then select* ***Show icon and notifications****.*

System tray menu	
Options	**Click the option to...**
Open	Opens the Attix5 Pro Client application window. ***Tip:*** *Users can also double-click the system tray icon to open the application window. For more information, see "Application window" earlier in this chapter.*
Backup Now	Manually initiates the backup process without opening the Backup Client application window.
Cancel Backup	If the service is busy with a backup (when the icon is animated), **Cancel** will stop the process.

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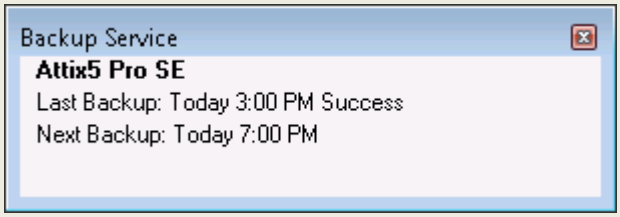
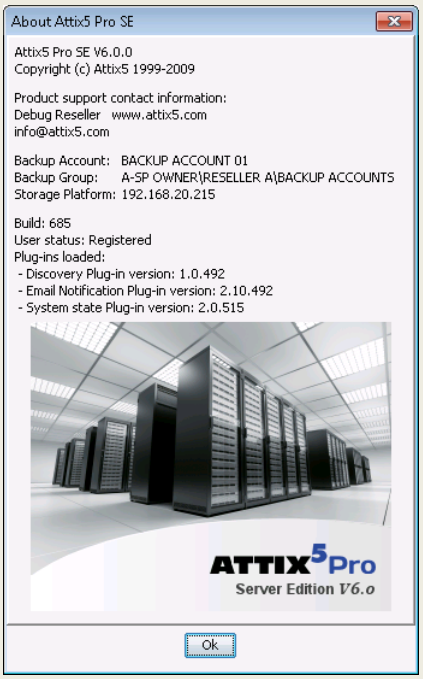
System tray menu continued...	
Option	**Click the option to...**
Monitor Status	Opens a small window above the system tray displaying the progress of the current process.  This enables you to monitor the status and progress of the task being performed without opening the application window.
Notifications	Provides you with options to enable/disable backup notifications. For more information, see "Notifications" later in this chapter.
About	Displays a window containing the product details. Click anywhere in the window to close it. 
Exit	Removes the icon from the system tray. *Note: This will not stop the Attix5 Pro service from running scheduled backups.* To see the icon in the system tray again, simply open the Attix5 Pro Client interface using the Windows **Start** button. For more information, see "Opening the Backup Client interface" earlier in this chapter.

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Warning: *The Backup Service must be running at all times for backups (manual or scheduled) to take place.*

Note: *To stop or start the Backup Service, open **Administrative Tools** in the **Control Panel**, and then double-click **Services**. In the list of services that appear, select **Attix5 Pro SE** and select **Stop** or **Start** on the toolbar. A red cross will appear in the corner of the system try icon when the service is not running:* .

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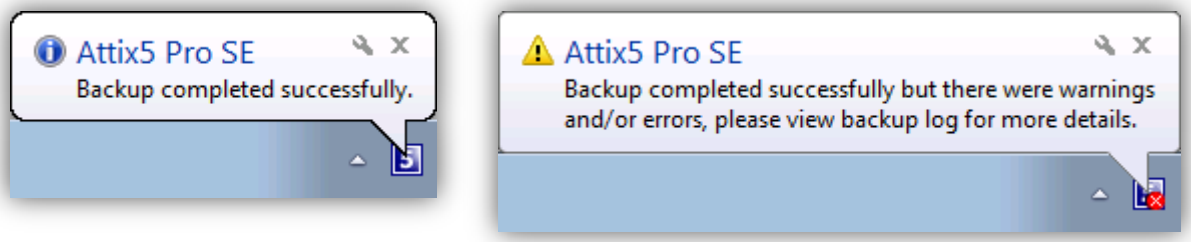
Notifications

The system tray icon can display a number of notifications once a backup has completed. The following notifications are available:

- Backup successful (popup message displayed for 5 seconds)
- Backup successful with errors (message displayed for one minute)
- Backup failed (message displayed until you click it) text

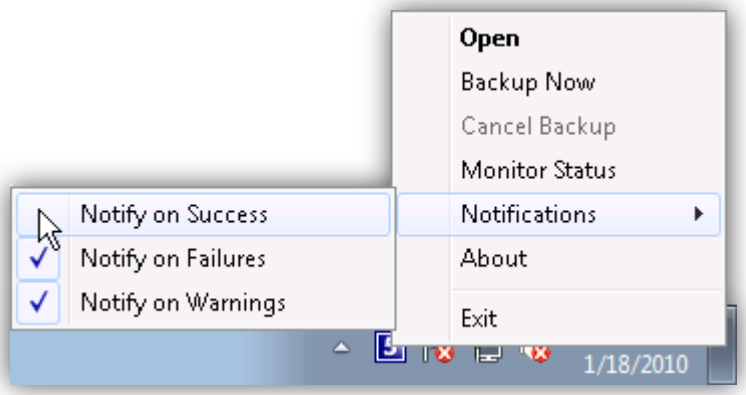
When a notification is available, a pop-up will display information. If there were warnings or errors, the system tray icon will also flash a red cross.


Attix5 Pro SE
Backup completed successfully.
Attix5 Pro SE
Backup completed successfully but there were warnings and/or errors, please view backup log for more details.

Note: To view related log file information, click anywhere within the pop-up.

To disable notifications:

Notifications are enabled by default but you can disable them individually by right-clicking the system tray icon and then clearing the check mark next to the relevant **Notifications** option.



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5. Backups

After installing Attix5 Pro Server Edition (SE) and creating a Backup Account, you can tell the Backup Client which files and/or folders to back up and which to ignore by creating a backup selection (see "Selecting data to back up" below). You can then start a backup manually or schedule automatic backups (see "Performing a manual backup" and "Scheduling automatic backups" below).

Note: *Any changes, additions or deletions to included files and folders will be backed up intelligently with every manual or scheduled backup.*

How to back up

The following sections describe how to:

- Select data to back up
- Use filters to specify files and/or folders to be excluded from the backup selection.
- Determine the backup selection size
- Start backups (automatically and manually)
- Cancel a backup
- Resume a failed or cancelled backup

Selecting data to back up

You can make your first backup selection or modify a backup selection at any time using the **Backup Selection** tab as described below.

To select files and folders for backup:

1. Click the **Backup Selection** tab.
2. In the Backup Selection tree, navigate to the folder or directory containing the file or folder.
3. Include or exclude files and/or folders, as described below.

Tip: *Once a file or folder is included in the backup selection, any modifications to it will be backed up automatically. For more information, see Patching in Chapter 8, "Options and settings."*

Warning: *If you have limited space on the drive running the Backup Client, it is recommended that you move the Cache, Logs and Temporary folders as well as the selection database to another location. For more information, see Disk Usage in Chapter 8, "Options and Settings."*

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To include an individual file:

In the right-hand pane, click the file icon or right-click the file name, and then click **Include**. An included file is displayed with a green icon: .

To deselect a file, you can either click the icon again or right-click the file name, and then click **Deselect**. A folder containing some included files is displayed with a green tinted icon: .

To include an entire folder:

Right-click the folder icon , and then click **Include Folder**. Alternatively, you can select the folder in the Backup Selection tree, and then click **Include Folder** on the **Selection** menu. Included folders are displayed with a green icon: .

> ***Note:*** *All files in the included folder and its subfolders will be included in the next backup. Any changes made within this folder or its subfolders will automatically be included as well.*

To deselect a folder, right-click the folder icon, and then click **Deselect Folder**.

To exclude a file or subfolder:

If an entire folder is included but you wish to exclude a particular file or subfolder, right-click the file or folder icon, and then click **Exclude** or **Exclude Folder**. Excluded items are displayed with red icons: or . Included folders that have some files or subfolders excluded are green with a red tint: .

> ***Tips:***
>
> - *You can create different backup selections for different backup sets. For more information, see Multiple Backup Sets in Chapter 8, "Options and settings."*
> - *You can use filters to automate file selection based on file types.*
> - *Once you have selected all files to be included and excluded, it may be useful to check the size of your backup selection before initiating your first backup. For more information, see Using filters later in this chapter.*

> ***Note:*** *Some files and directories are forcefully excluded from the backup selection. On Windows machines, these are the* ***pagefile.sys*** *and* ***hiberfil.sys*** *files; and the Backup Client* ***cache*** *and* ***to backup*** *folders.*

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Using filters

You can use filters to automate file inclusions or exclusions within a folder, based on file types.

*Example: A ***.doc** filter will include or exclude all Word documents within a folder, as well as any new Word documents that are added to that folder later.*

To apply a predefined filter to a specific folder:

1. In the Backup Selection tree, right-click the folder icon.
2. Point to **Filters**.
3. Point to one of the available filters in the list (e.g. **MS Office documents**).
4. Click **Include** or **Exclude**.

To modify an existing filter:

1. In the Backup Selection tree, right-click the folder icon, point to **Filters**, and then click **Edit filters**.
2. Select one of the filters and then modify its properties in the **Edit filter** box.
3. Click **OK**.

*Tip: To add a new filter from within the **Edit filters** dialog box, click the **New** button, supply a name that describes the filter, enter the file type(s), and then click **OK**.*

To add a new filter via the Backup Selection tree:

1. Right-click the folder icon, and then click **New filter**.
2. In the **Filter name** box, type a name to be used in the Filters menu.
3. In the **Filter** box, specify the file extensions to which the filter will apply.
4. Click **OK**.

The filter will be added to the Filters menu and you will be able to use it to include or exclude all files matching its criteria.

To remove filters from a folder:

1. Right-click the folder icon.
2. Point to **Filters**.
3. Point to the name of the filter you wish to remove.
4. Clear the check mark next to the selection (**Include** or **Exclude**).

To identify files and folders selected by filters:

Look at the icon state. Files and folders included in the backup selection by filters display with icons containing blue check marks: and .

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Profiled inclusions and exclusions

Some inclusions and exclusions are enforced at administration level on the Storage Platform. This is called "profiling". For more information, see *Profiling* in Chapter 8, "Options and settings."

Files and folders affected by profiling display with the following icons:

Icon	Status
	File inclusion
	Filtered file inclusion
	File exclusion
	Folder inclusion
	Filtered folder inclusion
	Folder exclusion

Note: Profiled selections cannot be modified from within the Backup Client and can only be changed on the Storage Platform. For more information, please refer to the ***Attix5 Pro Storage Platform Console User Manual****.*

Global filters

Global filters enable you to specify files and/or folders to be excluded from the backup selection. They also enable you to specify which file types should not be compressed before backup.

To add Global Filters:

1. Click the **Options** button on the toolbar, and then click **Global Filters**.
2. Select the type(s) of filters to apply and then specify their values. (For more information, see *Global Filters* in Chapter 8, "Options and settings.")
3. Click **OK**.

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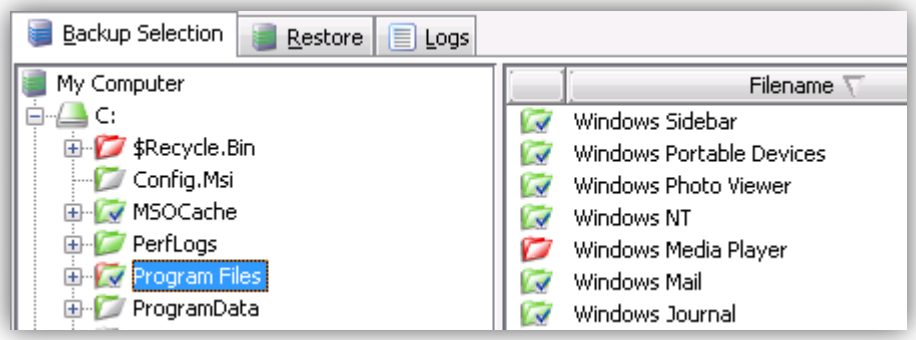
Icon legend

On the **Backup Selection** tab, each file and folder is displayed with an associated icon. The colour of the icon indicates the file or folder's backup selection status.



The following icon legend lists the Attix5 Pro icons and the statuses they indicate. You can access this legend by clicking **Icon Legend** on the **Help** menu.

Note: For more information on backup selections (inclusions and exclusions), see "Selecting data to back up" earlier in this chapter.

Icon legend		
Icon	**Status**	**Description**
	File (not selected)	The file exists in the folder or directory but is not *included* in the backup selection (neither included nor excluded).
	Selected by user	The Backup Client user has *included* the file in the backup selection.
	Selected by user filter	The Backup Client user has applied a filter to the parent folder or directory. That filter has *included* the file in the backup selection.
	Excluded by user	The Backup Client user has *excluded* the file from being backed up to the Storage Platform.
	Excluded by administrator	The Backup or Storage Platform Administrator has *excluded* this file or its file type. Files displaying this icon will not be backed up to the Storage Platform.
	Included by profiling	The Backup or Storage Platform Administrator has *included* this file or file type. Files displaying this icon will be backed up to the Storage Platform and cannot be deselected from within the Backup Client.

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Icon legend continued...		
Icon	**Status**	**Description**
	Included by profiling filter	The Backup or Storage Platform Administrator has applied a filter to the parent folder or directory. That filter has *included* the file in the backup selection. Files displaying this icon cannot be *deselected* or *excluded* from within the Backup Client.
	Excluded by profiling	The Backup or Storage Platform Administrator has *excluded* this file or its file type. Files displaying this icon will not be backed up to the Storage Platform and cannot be *included* in the backup selection from within the Backup Client.
	Folder (not selected)	The folder exists in the directory but it is not *included* in the backup selection.
	Some files selected by user	The Backup Client user has *included* some files in the backup selection.
	All files selected by user	The Backup Client user has *included* all files in the backup selection.
	All files selected by user, some excluded	The folder contains no unselected files. Each file is either *included* or *excluded*.
	All files excluded by the user	The Backup Client user has *excluded* all files in the folder from being backed up to the Storage Platform.
	Filter applied by user	The Backup Client user has applied a filter to the folder. The filter has *included* one or more files within the folder.
	Filter applied by user, some excluded	The Backup Client user has applied a filter to the folder that has *included* and *excluded* files within it.
	All files included by profiling	The Backup Administrator has *included* all the files contained in the folder. All files will be backed up to the Storage Platform. These inclusions cannot be changed by the Backup Client user.
	Filter applied by profiling	The Backup Administrator has applied a filter to the folder. This filter cannot be removed by a Backup Client user.
	Filter applied by profiling, all items excluded	The Backup Administrator has applied a filter to the folder, resulting in the folder being *excluded* from the backup selection. This filter cannot be removed by a Backup Client user.

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Icon legend continued...		
Icon	**Status**	**Description**
	Filter applied by profiling, some items included by user	The Backup Administrator has applied a filter to this folder using profiling and some items have been manually *included* by the Backup Client user (see "Selecting data to back up" earlier in this chapter).
	Filter applied by profiling, some items included and some items excluded by user.	The Backup Administrator has applied a filter to this folder using profiling. Some items have been *excluded* and others *included* by the Backup Client user (see "Selecting data to back up" earlier in this chapter).
	Filter applied by profiling but items excluded by user.	Items in the folder have been *included* using filters (see "Using filters" earlier in this chapter.)
	Folder excluded by Global Filter.	The folder has been *excluded* using Global Filters. For more information, see *Global Filters* in Chapter 8, "Options and settings."
	All files excluded by profiling	The Backup Administrator has *excluded* all files in the folder. These *excluded* files cannot be *included* by a Backup Client user.
	Plug-in node (not selected)	The plug-in exists but is not selected for backup to the Storage Platform.
	Some items selected by user	The Backup Client user has selected some of the items in the plug-in for backup to the Storage Platform.
	All items selected by user	The Backup Client user has selected all items in the plug-in for backup to the Storage Platform.
	All items selected by user, some excluded	The Backup Client user has *included* and *excluded* items in the plug-in.
	All items excluded by user	The Backup Client user has *excluded* all items in the plug-in from being backed up to the Storage Platform.
	Filter applied by user	The Backup Client user has applied a filter to the plug-in; specifying that certain file types must be *included* for backup to the Storage Platform.

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Icon legend menu continued...		
Icon	**Status**	**Description**
	Filter applied by user, some excluded	The Backup Client user has applied a filter to the plug-in; specifying that certain file types be *included* for backup to the Storage Platform but some items have been *excluded* either through the use of an exclusion filter or by manual exclusion.

Note: *For more information, see Profiled selections in Chapter 4, "Graphical User Interface (GUI)" and Plug-ins in Chapter 9, "Plug-ins."*

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Determining the backup selection size

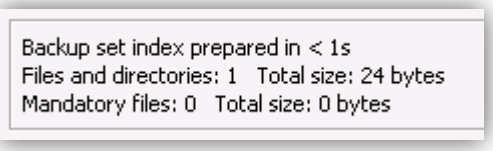
It is useful to determine the backup selection size before starting the backup process to avoid Over Limit errors.

Note: The Backup Client compares your backup selection size with the Backup Account limit (specified by your Backup Administrator) at the beginning of the backup process. If the selection size exceeds the Account limit, the backup process will stop and an Over Limit error message will be displayed.

To calculate the backup selection size:

A. On the **File** menu, click **Calculate Size**.
B. Alternatively, click the **Size** button on the toolbar:

The **Backup Selection Size** dialog box that appears displays total size of your backup selection (i.e. all files included for backup).



Warnings:

- *If your backup selection size exceeds your Account limit, you need to remove some items from the selection or ask your Backup Administrator to upgrade your Account limit.*
- *If a backup fails and an Out of Memory error message is recorded in the backup log, you need to increase the default amount of server memory you wish to allocate to the backup service.*

To remove a file from the backup selection:

A. In the **Size** dialog box, right-click the file's icon: . The icon will turn red to indicate that it is excluded: .

*Note: To exclude multiple files at once, click a file name in the list, hold down the **Shift** key and drag the mouse pointer to highlight the files. Right-click the selection, and then click **Exclude**.*

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B. Alternatively, on the **Backup Selection** tab, deselect or exclude files or folders that are currently selected for backup. For more information, see *Selecting data to back up* in Chapter 5, "Backups."

Exporting a selection report

After creating a backup selection, you can export a list of all backup inclusions and exclusions to an html file for future reference.

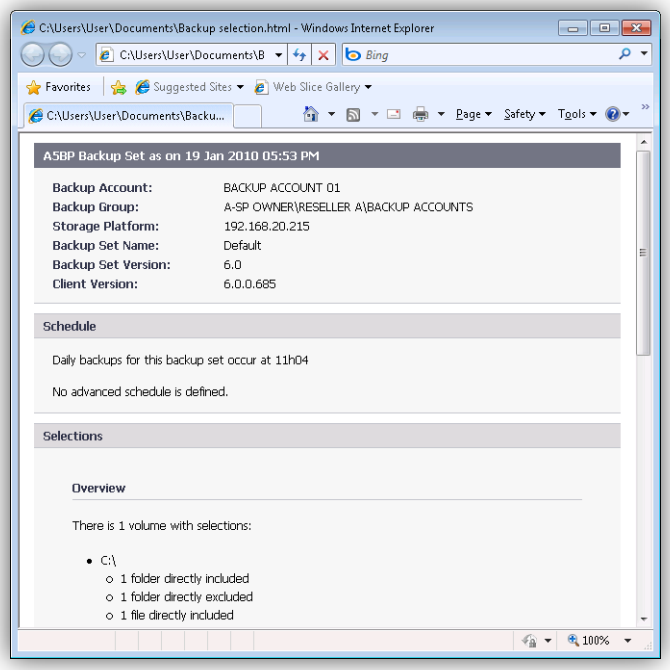
The selection report will specify:

- Files and folders included in the backup
- Files and folders excluded from the backup
- How each item was selected (user-selected, filters, profiling or mandatory patching)
- Where each item is located on the machine
- The total number of items in the backup selection

To export a selection report:

1. On the **File** menu, click **Export Selection**.
2. In the **Save As** dialog box, select the location in which to save the file, type a file name in the **File name** box, and then click **Export**.

The file will be saved to the specified location and can be viewed in any Internet browser.


C:\Users\User\Documents\Backup selection.html - Windows Internet Explorer
A5BP Backup Set as on 19 Jan 2010 05:53 PM
Backup Account: BACKUP ACCOUNT 01
Backup Group: A-SP OWNER\RESELLER A\BACKUP ACCOUNTS
Storage Platform: 192.168.20.215
Backup Set Name: Default
Backup Set Version: 6.0
Client Version: 6.0.0.685
Schedule
Daily backups for this backup set occur at 11h04
No advanced schedule is defined.
Selections
Overview
There is 1 volume with selections:
C:\
1 folder directly included
1 folder directly excluded
1 file directly included

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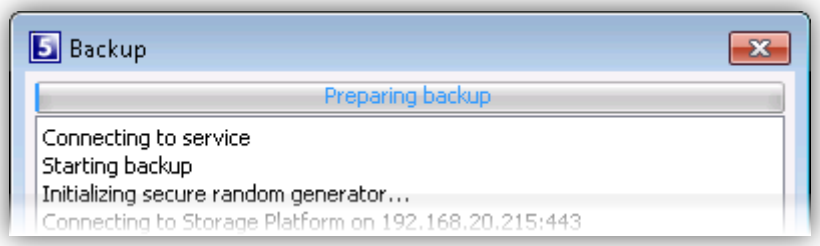
Starting a backup manually

Tip: It is recommended that you run a backup manually after creating your backup selection to ensure immediate data transmission to the Storage Platform. Thereafter, automatic backups will ensure hassle-free continuous backups. For more information, see "Scheduling automatic backups" later in this chapter.

To start a backup manually:

1. On the **File** menu, click **Backup Now**. Alternatively, click the **Backup** button on the toolbar.

The **Backup** dialog box appears and displays the progress of the backup:



If Multiple Backup Sets are enabled and their backup windows overlap, a backup queue will display in the **Backup** dialog box, enabling you to cancel the current backup in favour of the next, should you wish to do so. For more information, see *Multiple Backup Sets* in Chapter 8, "Options and settings."

2. To close the Backup Client after the backup process has started, click the **Hide** button. This will **not** cancel the backup process and the Backup Client can be re-opened at any time to view the progress of the backup.

Tips:

- *You can monitor the backup progress at any time by right-clicking the system tray icon and then clicking **Monitor Progress**.*
- *To view backup logs, click the **Logs** tab. Backup log dates are displayed in blue.*

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Scheduling automatic backups

Automatic backups are usually enabled and configured during the Account Setup process (see *Step 5 of 8: Schedule Backup Process* in Chapter 3, "Account Setup") but you can enable and schedule them at any point in time using the **Options and Settings** dialog box.

To schedule daily automatic backups:

1. On the **Tools** menu, click **Options**. Alternatively, click the **Options** button on the toolbar.
2. In the **Options and Settings** dialog box, click **Backup Schedule**.
3. If multiple backup sets are enabled, ensure that the correct set is selected in the **Backup Set** drop-down box. (For more information on backup sets, see *Multiple Backup Sets* in Chapter 8, "Options and settings.")
4. Select the **Daily Automatic Backups** check box, and then specify a backup time in the **Back up every day at** box.
5. Click **OK**.

To schedule advanced backups:

1. On the **Tools** menu, click **Options**.
2. In the **Options and Settings** dialog box, click **Backup Schedule**.
3. If multiple backup sets are enabled, ensure that the correct set is selected in the Backup Set drop-down box. (For more information on backup sets, see *Multiple Backup Sets* in Chapter 8, "Options and settings.")
4. Select the **Advanced Schedule** check box.
5. In the **Week Day** box, select a day on which a backup should be initiated.
6. Specify the time in the **Backup time** box.
7. Click the **Add** button to add the day and time to the **Additional Schedule** box.
8. Repeat steps 5 to 7 above until you have added all desired schedules to the **Additional Schedule** box.

Tips:

- *You are advised to back up at night when the server running the Backup Client is not in use. It must be switched on at the scheduled backup time(s), but the Windows user does not need to be logged in.*
- *Configuring automatic backups ensures that all selected data is backed up automatically, without the need for any user interaction. This is a safer alternative to relying on manual backups.*

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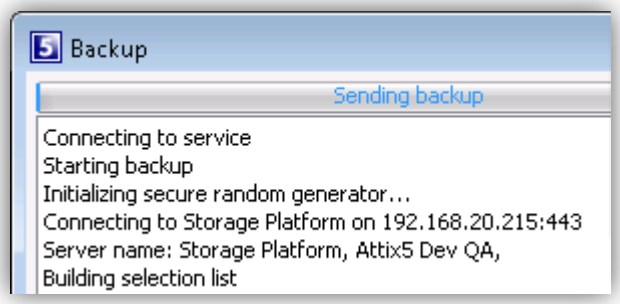
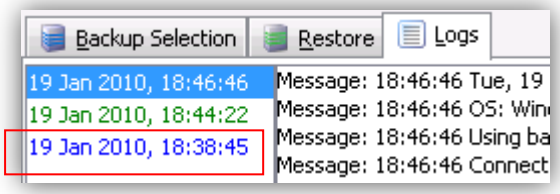
Backups will initiate at the scheduled times and the **Backup** dialog box will appear displaying the progress of the backup:



If Multiple Backup Sets are enabled and their backup windows overlap, a backup queue will display in the **Backup** dialog box, enabling you to cancel the current backup in favour of the next, should you wish to do so. For more information, see *Multiple Backup Sets* in Chapter 8, "Options and settings."

Tips:

- *To close the Backup Client after the backup process has started, click the **Hide** button. This will **not** cancel the backup process and you can re-open the Backup Client at any time to view the progress of the backup.*
- *You can monitor the backup progress at any time by right-clicking the system tray icon and then clicking **Monitor Progress**.*
- *To view backup logs, click the **Logs** tab. Backup log dates are displayed in blue.*



Backups will be stored on the Storage Platform and accessible via the **Restore** tab. For more information on restoring data, see Chapter 6, "Restores."

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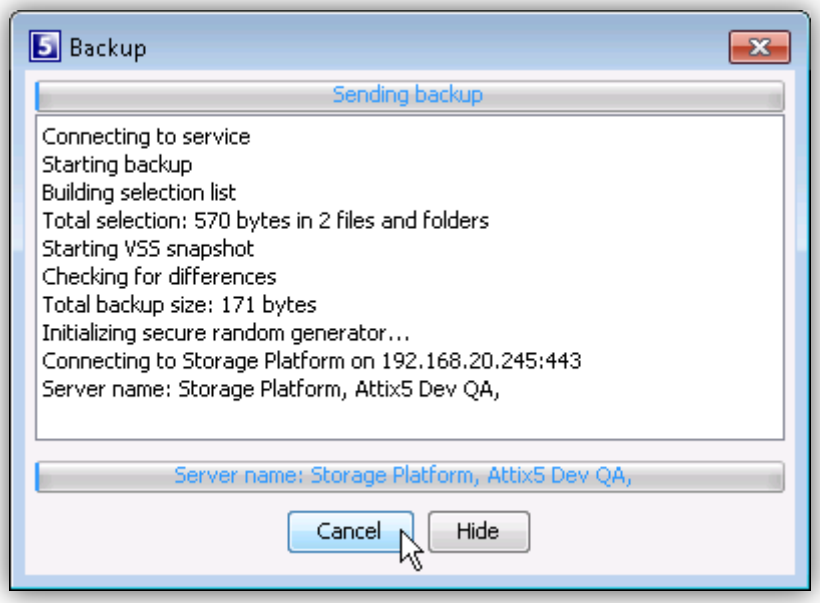
Cancelling a backup

Once a backup is in progress, you can cancel the process via the Backup progress window or using the system tray icon.

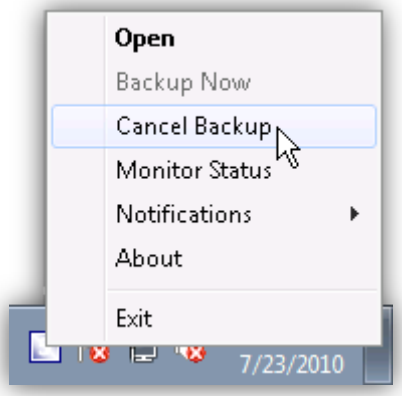
To cancel a backup:

a) Perform one of the following actions:

a) In the **Backup** progress window, click the **Cancel** button.



b) Alternatively, you can right-click the runner icon in your system tray, and then click **Cancel**.



b) In the confirmation dialog box that appears, click **Yes**.

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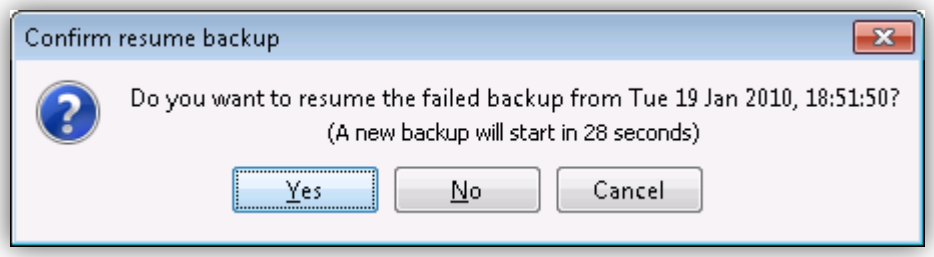
Resuming a backup

By default, the Backup Client tries to connect to the Storage Platform four times before cancelling the backup process. If, however, the previous backup was not successful and a manual backup is initiated, the Backup Client will display the prompt: "**Do you want to resume the failed backup…?**" with a 30 second countdown.


Confirm resume backup
Do you want to resume the failed backup from Tue 19 Jan 2010, 18:51:50?
(A new backup will start in 28 seconds)
Yes
No
Cancel

Click **Yes** to instruct the Backup Client to try to continue from where the process failed during the previous backup. Click **No** to initiate a new backup or **Cancel** to return to the Backup Client application window.

Note: A new backup will be initiated automatically after the countdown has elapsed.

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6. Restores

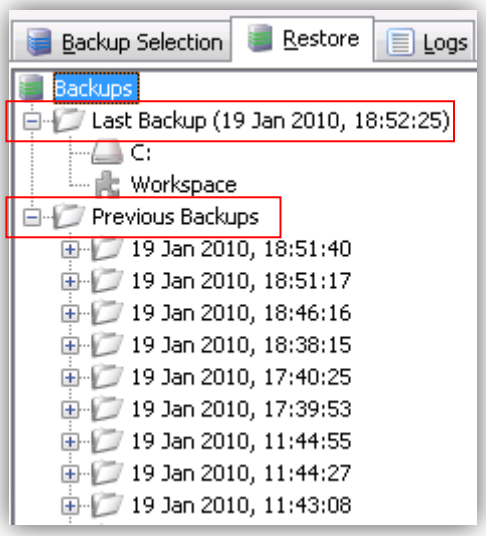
On the **Restore** tab, you can browse a tree structure representation of all successful backups and their files and folders.

How to restore

The following sections describe how to select data to restore, start the restore process, and search for specific backed up files.

Selecting data to restore

On the **Restore** tab, the Restore tree gives you access to backed up files via two main nodes: **Last Backup** and **Previous Backups**.



The **Last Backup** node contains the file/folder structure of the last successful backup and displays the date and time it occurred in parentheses "( )".

> *Note: Restores done from the **Last Backup** node are typically faster than those done from the **Previous Backups** node as the Backup Client may be able to retrieve the data from the cache instead the Storage Platform.*

When you expand the **Previous Backups** node, the Backup Client retrieves the list of previous backups from the Storage Platform and displays them in the tree.

To select and restore data from the last backup:

1. Click the **Restore** tab.
2. Expand the **Last Backup** node to view the files/folders.
3. Include a single file by clicking the icon next to the file or by right-clicking the file name and then clicking **Include**. Each included file is displayed with a green icon: .
4. Include an entire folder by right-clicking the folder and then clicking **Include folder**. Each included folder is displayed with a green folder icon: .
5. If an entire folder is included but you wish to exclude a particular file or subfolder, right-click the file or folder icon, and then click **Exclude** or **Exclude**

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Folder. Excluded items are displayed with red icons: or . Included folders that have some files or subfolders excluded are green with a red tint: .

6. Once all the files and folders to be restored are selected, start the restore process by clicking **Restore** on the **File** menu or the **Restore** button on the toolbar. For information on the restore options available, see "Restoring data" later in this chapter.

To select and restore data from previous backups:

1. Click the **Restore** tab.
2. Expand the **Previous Backups** node to connect to the Storage Platform and retrieve a list of all previous backup dates.
3. Expand the relevant backup node, and then click the folder/directory containing the data.
4. Include a single file by clicking the icon next to the file or by right-clicking the file name and then clicking **Include**. Each included file is displayed with a green icon: .
5. Include an entire folder by right-clicking the folder and then clicking **Include folder**. Each included folder is displayed with a green folder icon: .
6. If an entire folder is included but you wish to exclude a particular file or subfolder, right-click the file or folder icon, and then click **Exclude** or **Exclude Folder**. Excluded items are displayed with red icons: or . Included folders that have some files or subfolders excluded are green with a red tint: .
7. Once all the files and folders to be restored are selected, start the restore process by clicking **Restore** on the **File** menu or the **Restore** button on the toolbar. For information on the restore options available, see "Restoring data" below.

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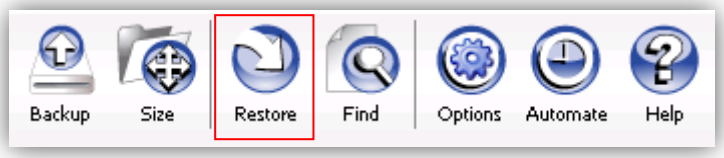
Restoring data

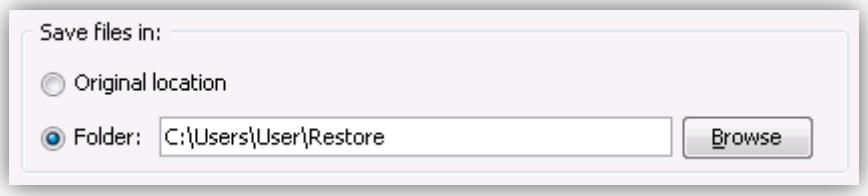
After you have selected the files and folders to restore, you can start the restore process as described below.

To start the restore process:

1. On the **File** menu, click **Restore**. Alternatively, click the **Restore** button on the toolbar:



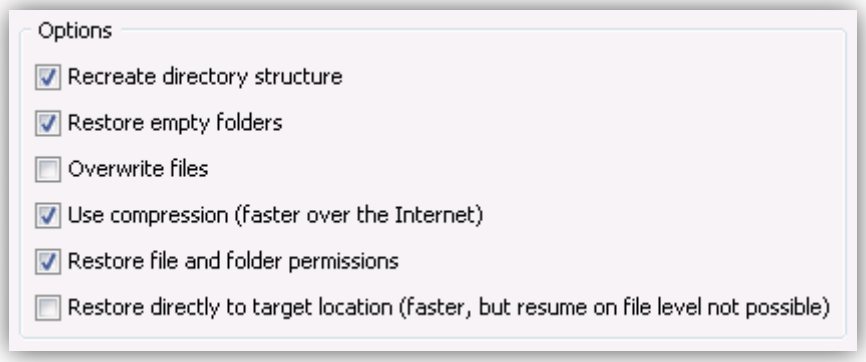
The **Restore** dialog box will prompt you for a restore location:



2. Select **Original location** to restore the files to the same location that they were backed up from or select **Folder** and then browse to a new location.

> ***Warning:*** *If* ***Original location*** *is selected, the restored files will overwrite any existing files with the same name in that location. A warning will, however, be displayed before the Backup Client overwrites any files.*

In the Options area, specify the restore options.


Options
Recreate directory structure
Restore empty folders
Overwrite files
Use compression (faster over the Internet)
Restore file and folder permissions
Restore directly to target location (faster, but resume on file level not possible)

For more information on restore options, see the "Restore options" table below.

3. Click **OK**.

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Restore options	
Option	**Description**
Recreate directory structure	By default, the folder structure is recreated in the **Restore** folder. To specify that all files be restored to one location, clear the **Recreate folder structure** check box. *Note: If restoring files from different folders with the same file names, you need to recreate the directory structure to prevent overwriting the files.*
Restore empty folders	To restore all empty folders within the directory structure, select the **Restore empty folders** check box. Clear the check box to restore only those folders containing backed up files. *Note: This option is only available when **Recreate directory structure** is selected.*
Overwrite files	Select this option to prevent the Backup Client displaying a prompt before overwriting existing files. *Warning: If this check box is selected, files with matching filenames in matching directories will be overwritten without warning.*
Use compression	Select the **Use compression** check box to enable the Storage Platform to compress files before transmitting them to the Backup Client. *Tip: You are advised to enable this setting when restoring over a slow Internet connection as it will reduce the size of the files, making the transfer process faster.*
Restore file and folder permissions	Clear this check box to prevent the Backup Client restoring file and folder permissions. You would typically only select this option after a complete server failure (to restore files before user accounts are re-created).

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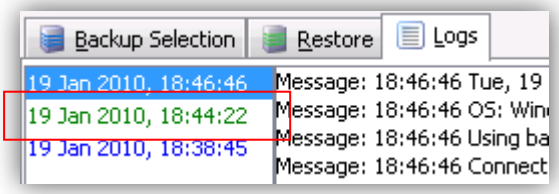
Restore options continued...	
Option	**Description**
Restore directly to target location	Select this check box to write files directly to the specified folder without using a temporary working folder. The restore process is faster using this option due to less disk access. However, a file-level restore resume is not possible. Should there be a communication error during a file transfer, the complete file will be resent.

*Note: You can view restore logs on the **Logs** tab. Restore log dates are displayed in green.*



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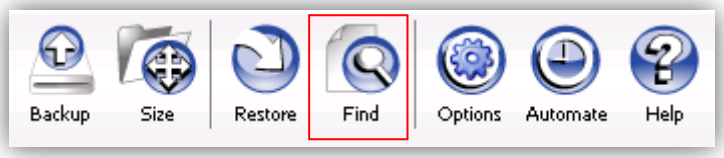
Finding files in backups

To find a specific backed up file, it may be easier to use the **Find** function than to browse the Restore tree.

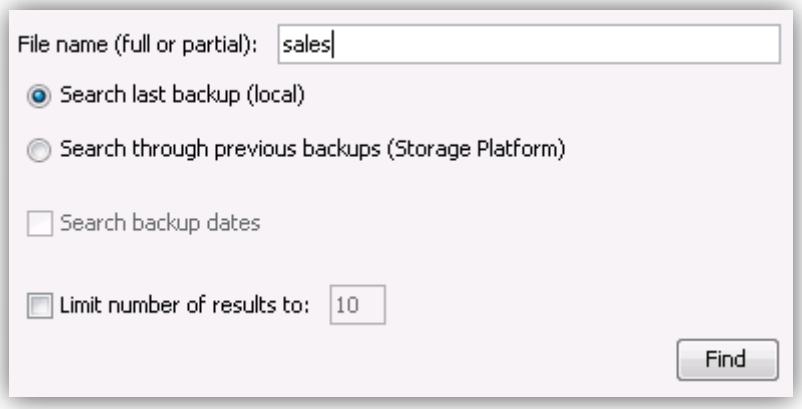
You have the option to scan only your last backup (locally), or you can connect to the Storage Platform and search through previous backups.

To search for a file in your latest backup:

1. On the **File** menu, click **Find Files in Backups**. Alternatively, click the **Find** button on the toolbar:



2. Type the file name or part thereof in the **File name** box, and then click **Find.**



Example: If "sales" is searched for, the Backup Client will display a list of all files in the last backup containing "sales" in the filename.

*Tip: Use the * and ? wildcards for advanced search queries.*

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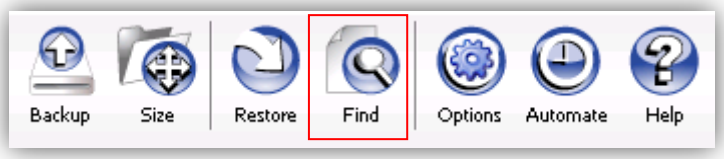
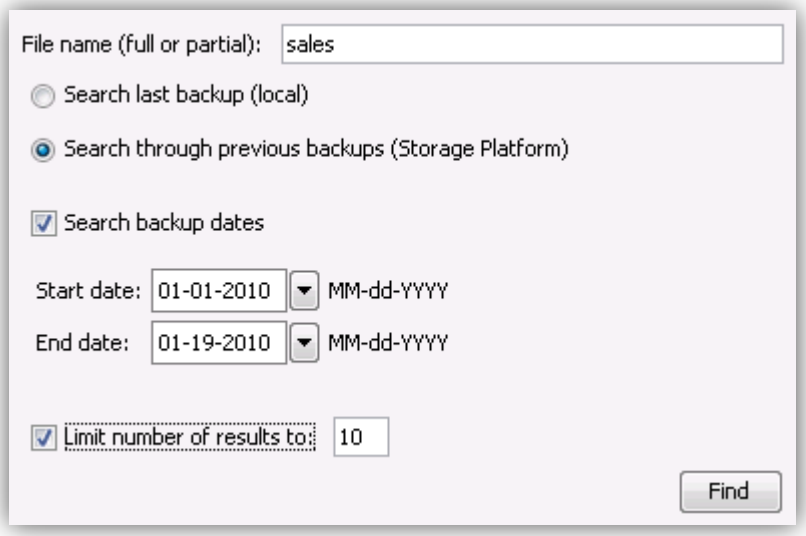
To search for a file in previous backups:

1. On the **File** menu, click **Find Files in Backups**. Alternatively, click the **Find** button on the toolbar:



2. Type the file name or part thereof in the **File name** box**.**
3. Select the **Search through previous backups (Storage Platform)** check box.
4. If you wish to limit the search to particular dates, select the **Search backup dates** check box and then use the **Start date** and **End date** boxes to specify a time period.
5. To limit the number of results that display, select the **Limit number of results to** check box and then type a number in the box provided.
6. Click **Find**.



*__Tip:__ Use the * and ? wildcards for advanced search queries.*

*__Note:__ If **Search backup dates** is selected, the **backup date** is used for the search instead of the **file create** or **file modified** date.*

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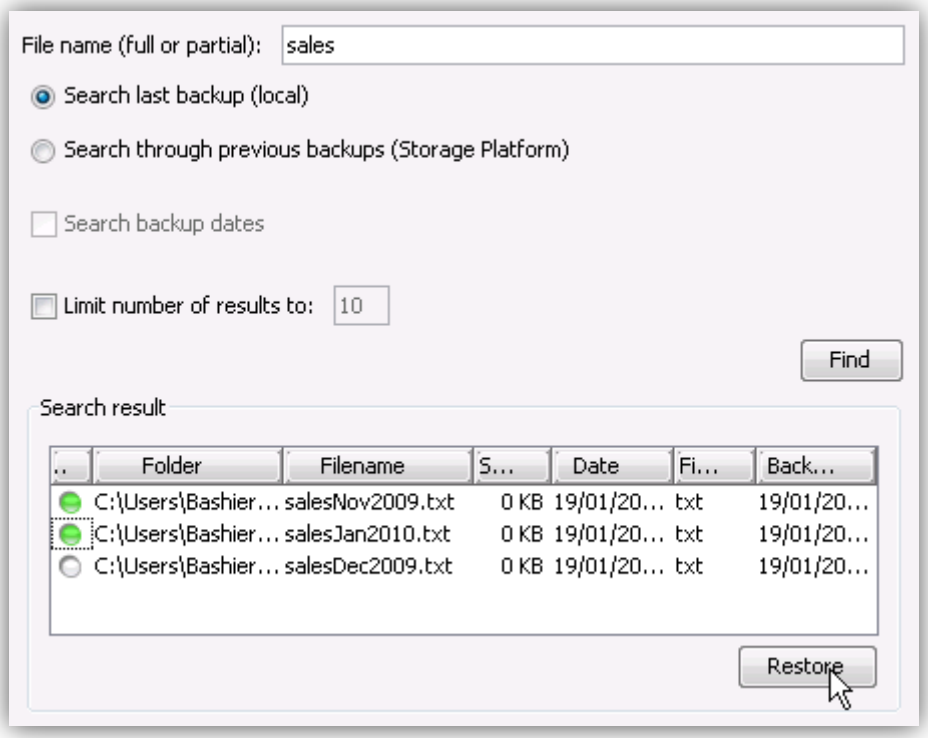
To restore files from the Find Files in Backup dialog box:

1. In the search results list, include the files to restore by clicking the icons next to the file names or by right-clicking each file name and then clicking **Include**.
2. Click the **Restore** button.



The **Restore Options** dialog box will appear, enabling you to specify the location in which to save the restored files. For more information on restore options, see "Selecting data to restore" earlier in this chapter.

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Restoring a backup selection

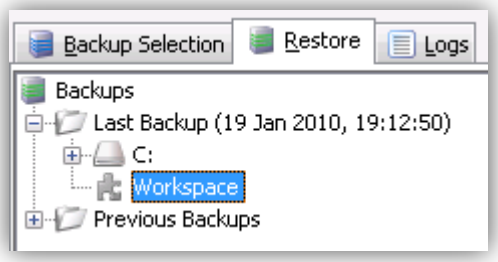
By default, with every backup performed, a copy of the backup selection is saved on the Storage Platform. For more information on backup selection, see “Selecting data to back up” earlier in this chapter.

This enables you to restore, not only your backed up files and folders, but the selection you used to back them up as well.

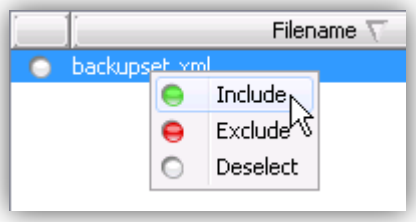
> ***Note:*** *This is especially useful in disaster recovery cases, as it enables you to restore your entire backup setup to perform exactly as it did at the last backup.*

To restore a backup selection:

1. Click the **Restore** tab.
2. Expand the relevant backup folder, and then click the **Workspace** node.



3. In the right-hand pane, click the icon next to the name of the backup set to include it for restore. If you have not enabled Multiple Backup Sets (see *Multiple Backup Sets* in Chapter 8, “Options and settings”), include the only entry that displays.



4. Click the **Restore** button on the toolbar.
5. Select the appropriate restore options. (See “Selecting data to restore” earlier in this chapter.)
6. Click **OK**.

The backup selection will be restored to the location specified in the restore options.

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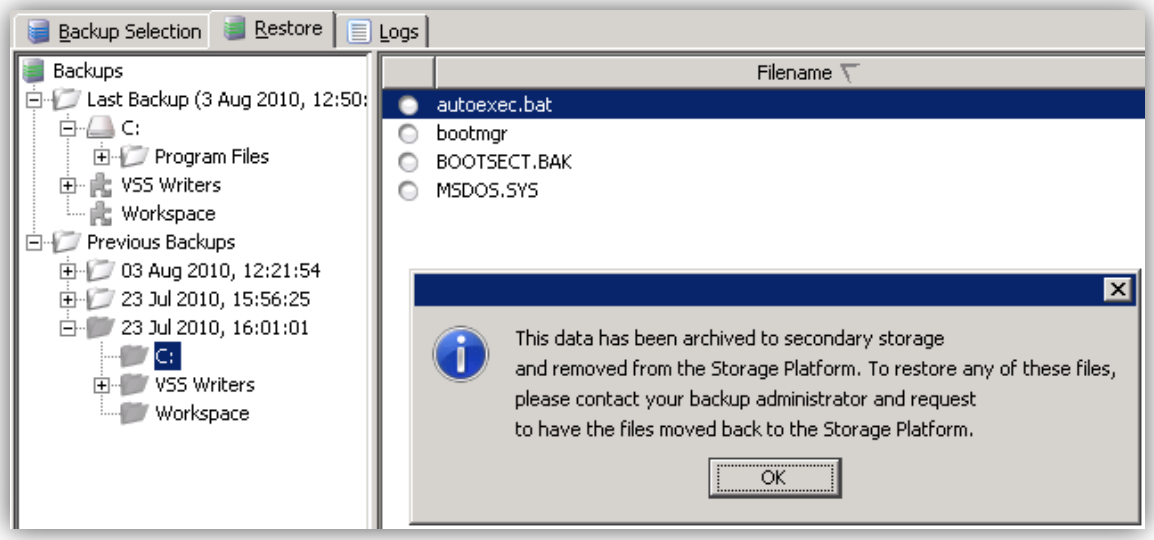
Restoring archived data

Attix5 Pro allows Backup Administrators to archive Backup Clients' data to tape or another disk drive using the Hierarchical Storage Management (HSM) feature. Once data has been archived, the backups will display in the Restore tree as greyed out folders, allowing you to browse the file/folder structure of the backups. However, if you try to restore archived data, you may receive a message informing you that the data has been archived to secondary storage, as illustrated in the screenshot below.



*Note: Grey folders indicate archived data. However, if you do not see these folders in the **Restore** tree, it does not mean that no archived backups are available. In such cases, please consult your Backup Administrator for further details about archived backups.*

You can access archived data by requesting that your Backup Administrator import the HSM data to the Storage Platform. Once the data has been imported, it will be available for restore in the same manner as all other backups.

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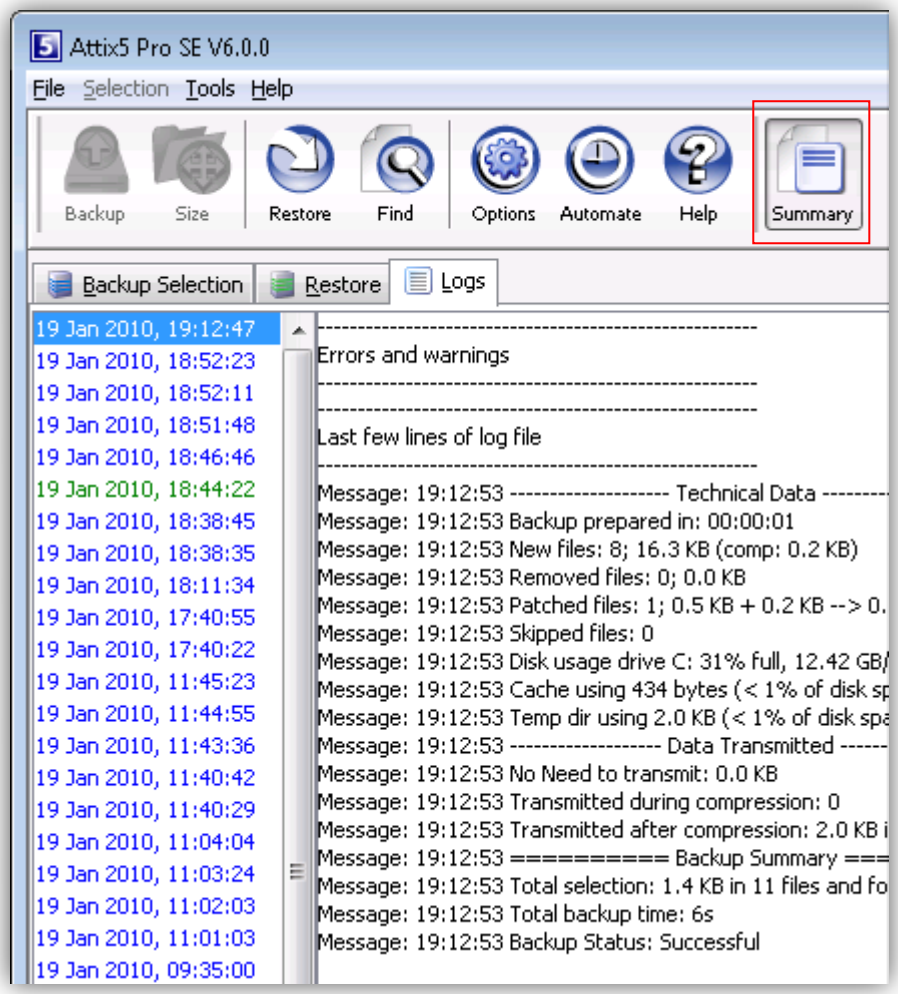
7. Logs

The Backup Client logs all backup and restore processes and their results in log files that you can view on the **Logs** tab. The following sections describe how to access log files and modify their settings.

Accessing log files

The **Logs** tab in the Backup Client provides detailed information about each backup and restore. An additional toolbar button appears when the **Logs** tab is opened: the **Summary** button. Use the button to view only errors and warnings and the last 14 lines in the log file.


Attix5 Pro SE V6.0.0
File Selection Tools Help
Backup
Size
Restore
Find
Options
Automate
Help
Summary
Backup Selection
Restore
Logs
19 Jan 2010, 19:12:47
19 Jan 2010, 18:52:23
19 Jan 2010, 18:52:11
19 Jan 2010, 18:51:48
19 Jan 2010, 18:46:46
19 Jan 2010, 18:44:22
19 Jan 2010, 18:38:45
19 Jan 2010, 18:38:35
19 Jan 2010, 18:11:34
19 Jan 2010, 17:40:55
19 Jan 2010, 17:40:22
19 Jan 2010, 11:45:23
19 Jan 2010, 11:44:55
19 Jan 2010, 11:43:36
19 Jan 2010, 11:40:42
19 Jan 2010, 11:40:29
19 Jan 2010, 11:04:04
19 Jan 2010, 11:03:24
19 Jan 2010, 11:02:03
19 Jan 2010, 11:01:03
19 Jan 2010, 09:35:00
Errors and warnings
Last few lines of log file
Message: 19:12:53 ---------- Technical Data ---------
Message: 19:12:53 Backup prepared in: 00:00:01
Message: 19:12:53 New files: 8; 16.3 KB (comp: 0.2 KB)
Message: 19:12:53 Removed files: 0; 0.0 KB
Message: 19:12:53 Patched files: 1; 0.5 KB + 0.2 KB --> 0.
Message: 19:12:53 Skipped files: 0
Message: 19:12:53 Disk usage drive C: 31% full, 12.42 GB/
Message: 19:12:53 Cache using 434 bytes (< 1% of disk sp
Message: 19:12:53 Temp dir using 2.0 KB (< 1% of disk spa
Message: 19:12:53 ---------- Data Transmitted ------
Message: 19:12:53 No Need to transmit: 0.0 KB
Message: 19:12:53 Transmitted during compression: 0
Message: 19:12:53 Transmitted after compression: 2.0 KB i
Message: 19:12:53 ========== Backup Summary ===
Message: 19:12:53 Total selection: 1.4 KB in 11 files and fo
Message: 19:12:53 Total backup time: 6s
Message: 19:12:53 Backup Status: Successful

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Changing log file settings

You can specify your logging preferences on the Logging page in the **Options and Settings** dialog box.

Modifiable settings include:

- level of detail included
- date inclusion/exclusion in time stamp
- log file retention period

For information on configuring the log file settings, see *Logging* in Chapter 8, “Options and settings.”

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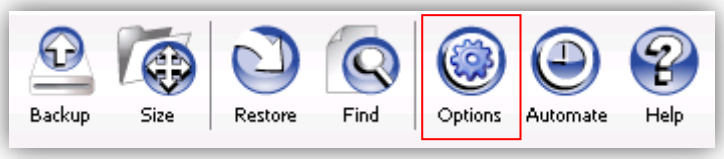
8. Options and settings

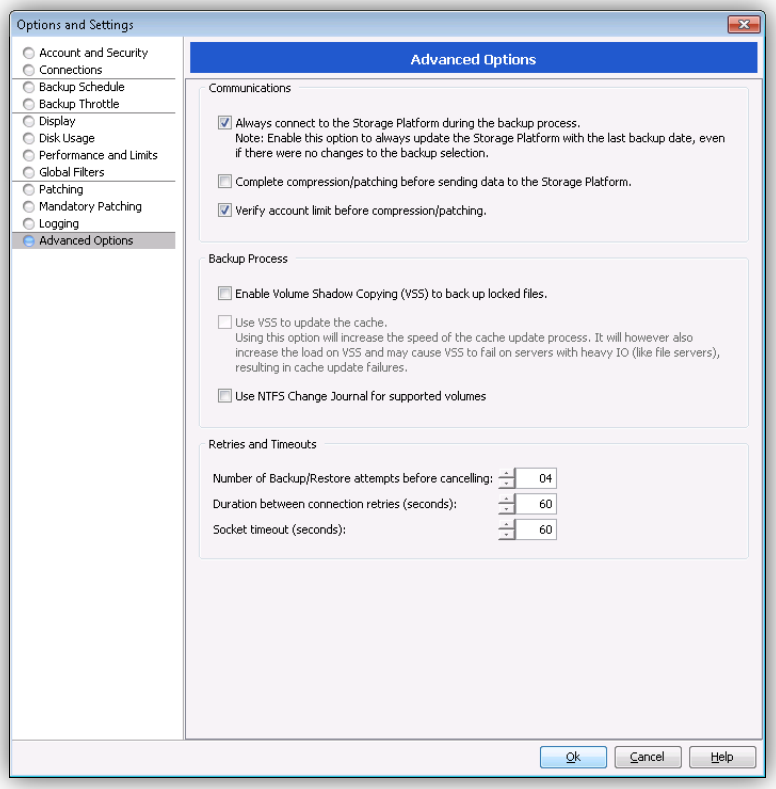
To access the Options and Settings dialog box:

- On the **Tools** menu, click **Options**. x
- Alternatively, click the **Options** button on the toolbar:



The various options and settings are grouped in the left-hand pane according to their functions. Click an item on the left to view the full set of options related to that function.

*Example: Click **Advanced Options** in the left-hand pane to view all advanced options on the right:*


Options and Settings
Account and Security
Connections
Backup Schedule
Backup Throttle
Display
Disk Usage
Performance and Limits
Global Filters
Patching
Mandatory Patching
Logging
Advanced Options
Advanced Options
Communications
Always connect to the Storage Platform during the backup process.
Note: Enable this option to always update the Storage Platform with the last backup date, even if there were no changes to the backup selection.
Complete compression/patching before sending data to the Storage Platform.
Verify account limit before compression/patching.
Backup Process
Enable Volume Shadow Copying (VSS) to back up locked files.
Use VSS to update the cache.
Using this option will increase the speed of the cache update process. It will however also increase the load on VSS and may cause VSS to fail on servers with heavy IO (like file servers), resulting in cache update failures.
Use NTFS Change Journal for supported volumes
Retries and Timeouts
Number of Backup/Restore attempts before cancelling: 04
Duration between connection retries (seconds): 60
Socket timeout (seconds): 60
Ok
Cancel
Help

***Warning:** The **Options and Settings** dialog box controls advanced features in the Backup Client. Please read through this section carefully before changing any settings. Incorrect settings could cause critical errors.*

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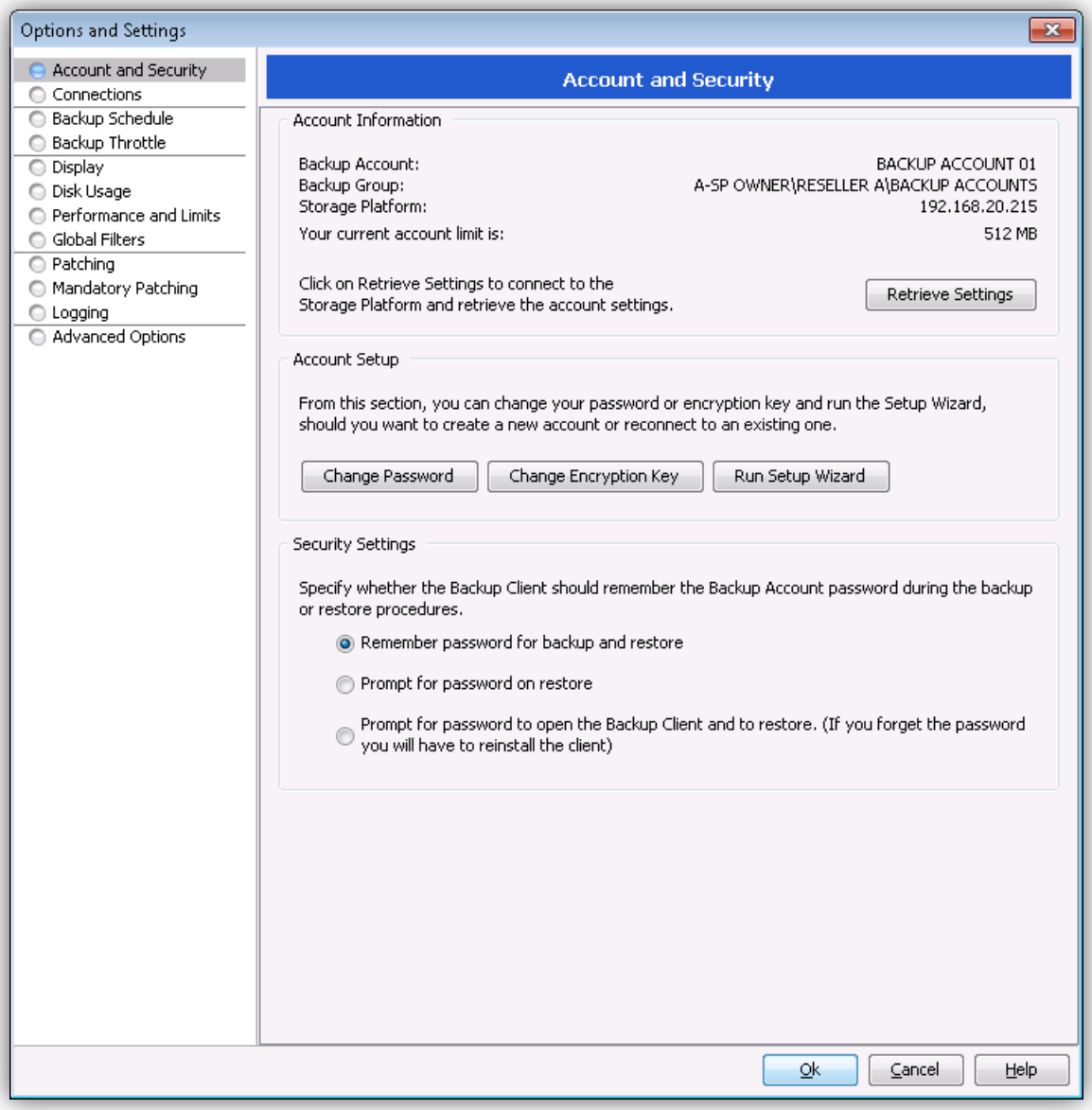
Account and Security

You can use the Account and Security page in the **Options and Settings** dialog box to:

- Update Account information
- Change your password, encryption key or Backup Account properties
- Modify Client security settings


Options and Settings
Account and Security
Connections
Backup Schedule
Backup Throttle
Display
Disk Usage
Performance and Limits
Global Filters
Patching
Mandatory Patching
Logging
Advanced Options
Account and Security
Account Information
Backup Account:
BACKUP ACCOUNT 01
Backup Group:
A-SP OWNER\RESELLER A\BACKUP ACCOUNTS
Storage Platform:
192.168.20.215
Your current account limit is:
512 MB
Click on Retrieve Settings to connect to the Storage Platform and retrieve the account settings.
Retrieve Settings
Account Setup
From this section, you can change your password or encryption key and run the Setup Wizard, should you want to create a new account or reconnect to an existing one.
Change Password
Change Encryption Key
Run Setup Wizard
Security Settings
Specify whether the Backup Client should remember the Backup Account password during the backup or restore procedures.
Remember password for backup and restore
Prompt for password on restore
Prompt for password to open the Backup Client and to restore. (If you forget the password you will have to reinstall the client)
Ok
Cancel
Help

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The Account and Security page consists of the following areas:

- Account Information
- Account Setup
- Security Settings

Account Information area

This area displays your Backup Account information as it is configured on the Storage Platform. You can use the **Retrieve Settings** button to update your Account settings.

Tip: This button is useful to verify that the Account limit has been modified after requesting a change from the Backup Administrator or to update Backup Group Profiling settings.

Account Setup area

You can use the **Change Password** and **Change Encryption Key** buttons to overwrite the current password and encryption key. To change your Backup Account settings, click the **Run Setup Wizard** button. For more information, see *Account Setup Wizard* in Chapter 3, "Account setup."

Warnings:

- *Changing the encryption key involves intensive processing on the Storage Platform and may take several minutes. You should avoid doing this unless the encryption key has been compromised.*
- *Disaster recovery is not possible without the encryption key. Please ensure that this key is kept in a safe place. THIS ENCRYPTION KEY IS NOT STORED ON THE STORAGE PLATFORM AND CANNOT BE RECOVERED OR RESET IF LOST.*

Security Settings area

In the Security Settings area, you can select whether or not the Backup Client should remember the Backup Account password when running a backup or a restore.

There are three options available:

- **Remember password for backup and restore**: The Backup Client remembers the Backup Account password when doing a backup or restore. This is the default setting.
- **Prompt for password on restore**: The Backup Client prompts for the Backup Account password during the restore process.
- **Prompt for password to open the Backup Client and to restore**: The Backup Client prompts for the Backup Account password when opening the Backup Client and the **Restore** tab.

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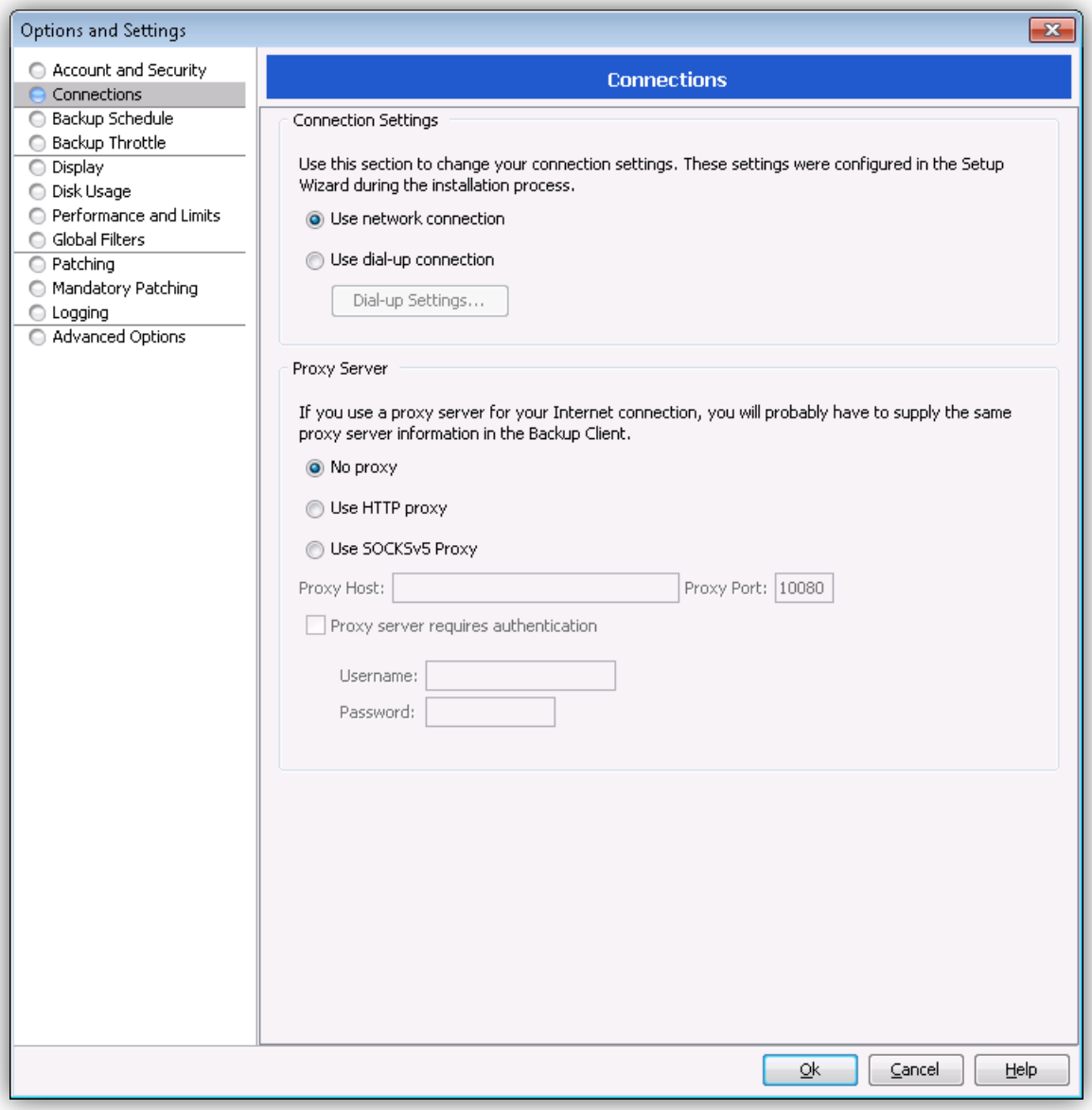
Connections

You can use the Connections page in the **Options and Settings** dialog box to:

- Modify Storage Platform connection settings
- Enable/disable/configure proxy server details



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The Connections page consists of the following areas:

- Connection Settings
- Proxy Server

Connection Settings area

In this area, you can change the type of connection that the Backup Client uses to connect to the Storage Platform. You can choose between a network or dial-up connection.

*Note: The **Dial-up Settings** button is enabled if you select **Use dial-up connection**. Click this button to select an existing dial-up connection configured on the computer and then supply the username and password for that Internet connection.*

Proxy Server area

In this area, you can specify whether or not the Backup Client should connect to a proxy server when connecting to the Internet. If you select that it should, you can specify the proxy server details in the relevant boxes.

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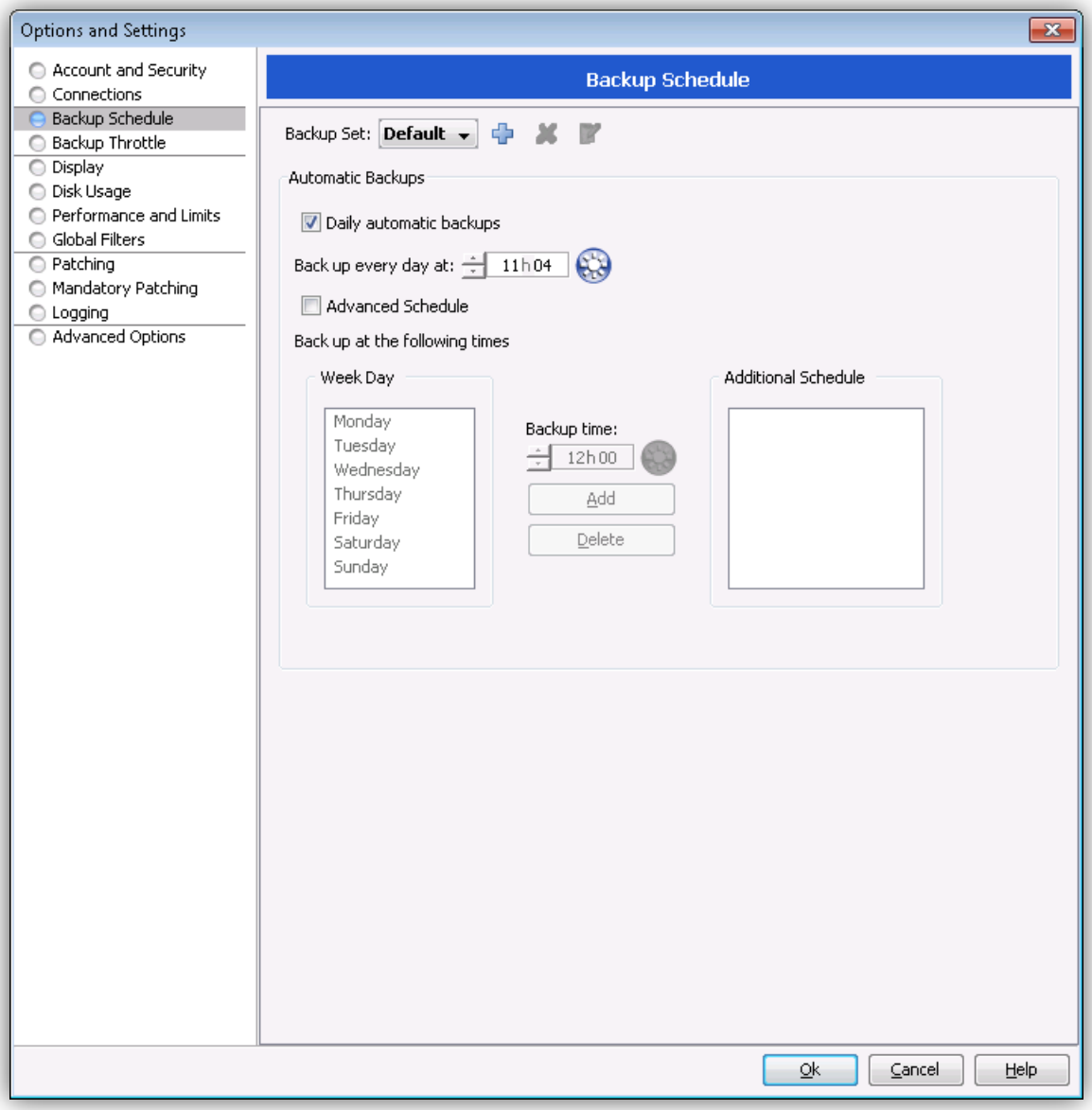
Backup Schedule

You can use the Backup Schedule page in the **Options and Settings** dialog box to:

- Enable/disable daily automatic backups
- Create advanced automatic backup schedules



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The Backup Schedule page consists of the Automatic Backups area.

*Note: If using Multiple Backup Sets, use the **Backup Set** drop-down at the top of the dialog box to specify which backup set schedule you wish to configure. For more information, see Multiple Backup Sets in Chapter 8, "Options and settings."*

Automatic Backups area

In this area, you can enable or disable automatic backups.

Tip: Daily automatic backups are enabled by default unless disabled during the Backup Account setup. If disabled, you can enable it by following the instructions below.

To enable automatic backups:

1. Select the **Daily automatic backups** check box.
2. Specify a time in the **Backup every day at** box
3. Click **Ok**.

To disable automatic backups (not recommended):

1. Clear the **Daily automatic backups** and **Advanced Schedule** check boxes.
2. Click **Ok** to close the **Options and Settings** dialog box.

***Warning:** This option is not recommended. If an automated backup schedule is not created, backups will have to be run manually. Enabling automatic backups is strongly advised.*

For detailed instructions on how to enable and schedule automatic backups, see *Scheduling automatic backups* in Chapter 5, "Backups."

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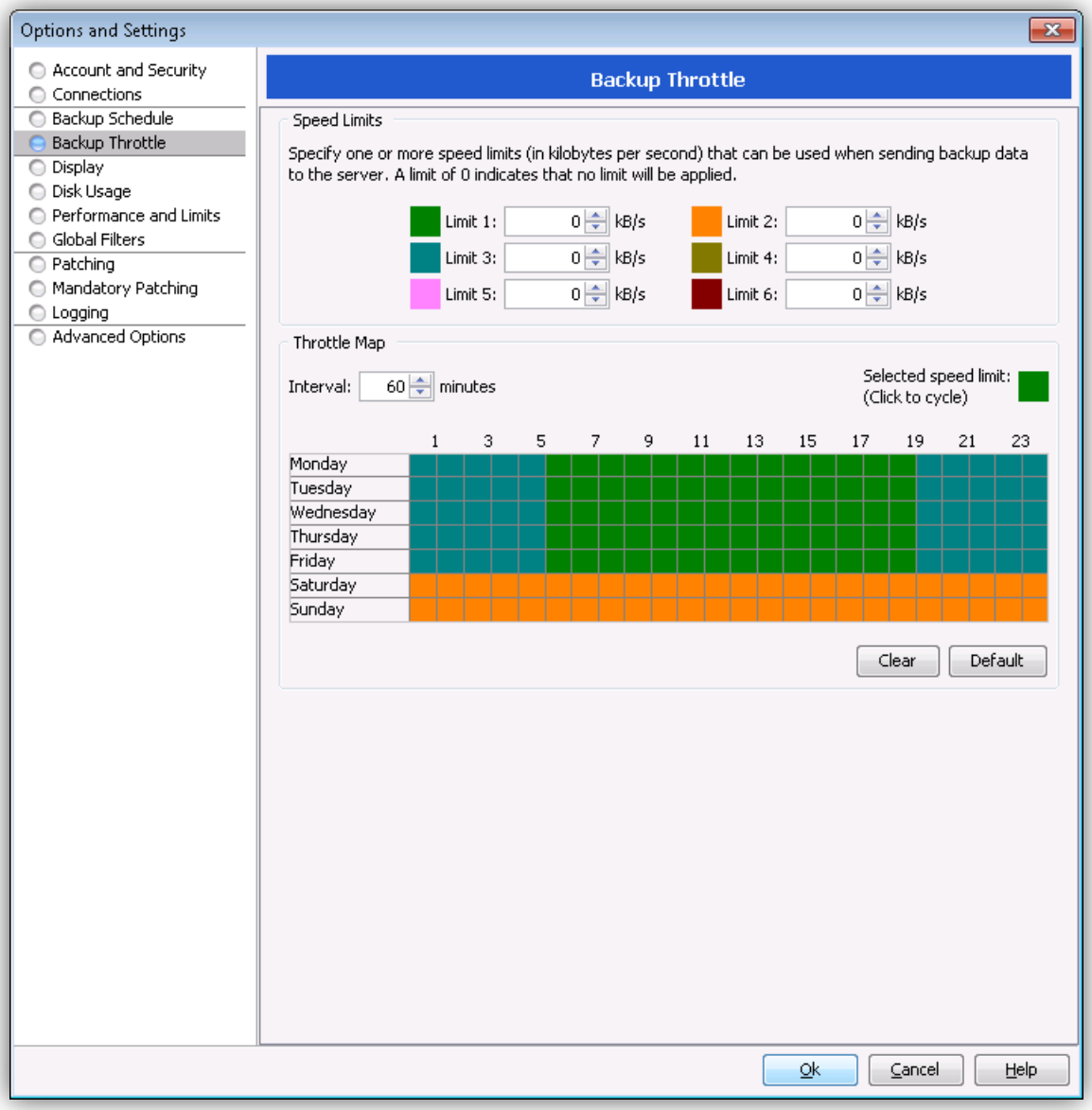
Backup Throttle

The Backup Throttle page in the **Options and Settings** dialog box enables you to specify the Client's bandwidth usage speed limits. You can do this by creating a backup throttle map. Backup data will then only be transferred at the specified speed limits during each interval.



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The Backup Throttle page consists of the following areas:

- Speed Limits
- Throttle Map

Speed Limits area

In this area, you can specify one or more speed limits (in kilobytes per second) that can be applied when sending backup data to the server.

To specify a speed limit:

Choose a colour to represent the limit and specify the limit in that colour's **Limit** box.
You can now schedule the speed limits in the Throttle Map area as described below.

Note: *A limit of 0 indicates that no limit will be applied.*

Throttle Map area

In this area, you can indicate when the speed limits specified in the Speed Limits area should apply by creating a throttle map.

Tip: *By default, a throttle map is provided with different colours indicating week day office hours, out-of-office hours and weekends (using intervals of 60 minutes). You can either set speed limits for the colours used in this default map or you can click the* ***Clear*** *button and create a new map by following the instructions below.*

To create a throttle map:

1. In the **Interval** box, specify the number of minutes that each block in the graph should represent.
2. In the Speed Limits area, click a speed limit colour.
3. In the Throttle Map area, click the schedule interval boxes you wish to apply the limit to. The colour of the selected interval boxes will change to match that of the chosen limit.

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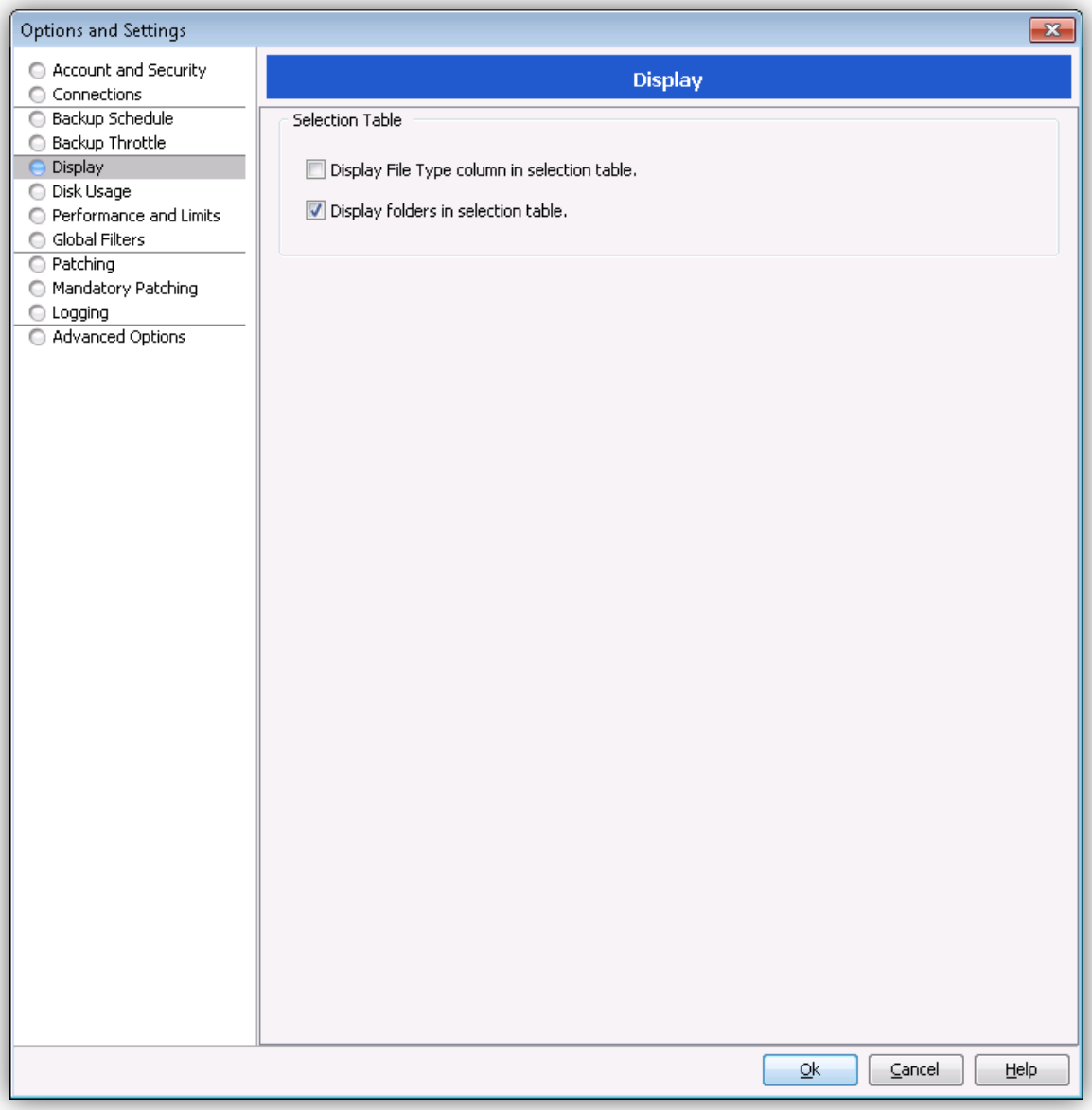
Display

You can use the Display page in the **Options and Settings** dialog box to select your Backup Client display preferences.



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The Display page consists of a Selection Table area that provides you with the following options:

- **Display File Type column in selection table** - Adds a **File Type** column to the right-hand pane of the **Backup Selection** and **Restore** tabs.
- **Display folders in selection table** - Enables the **Backup Selection** tab's right-hand pane to display subfolders.

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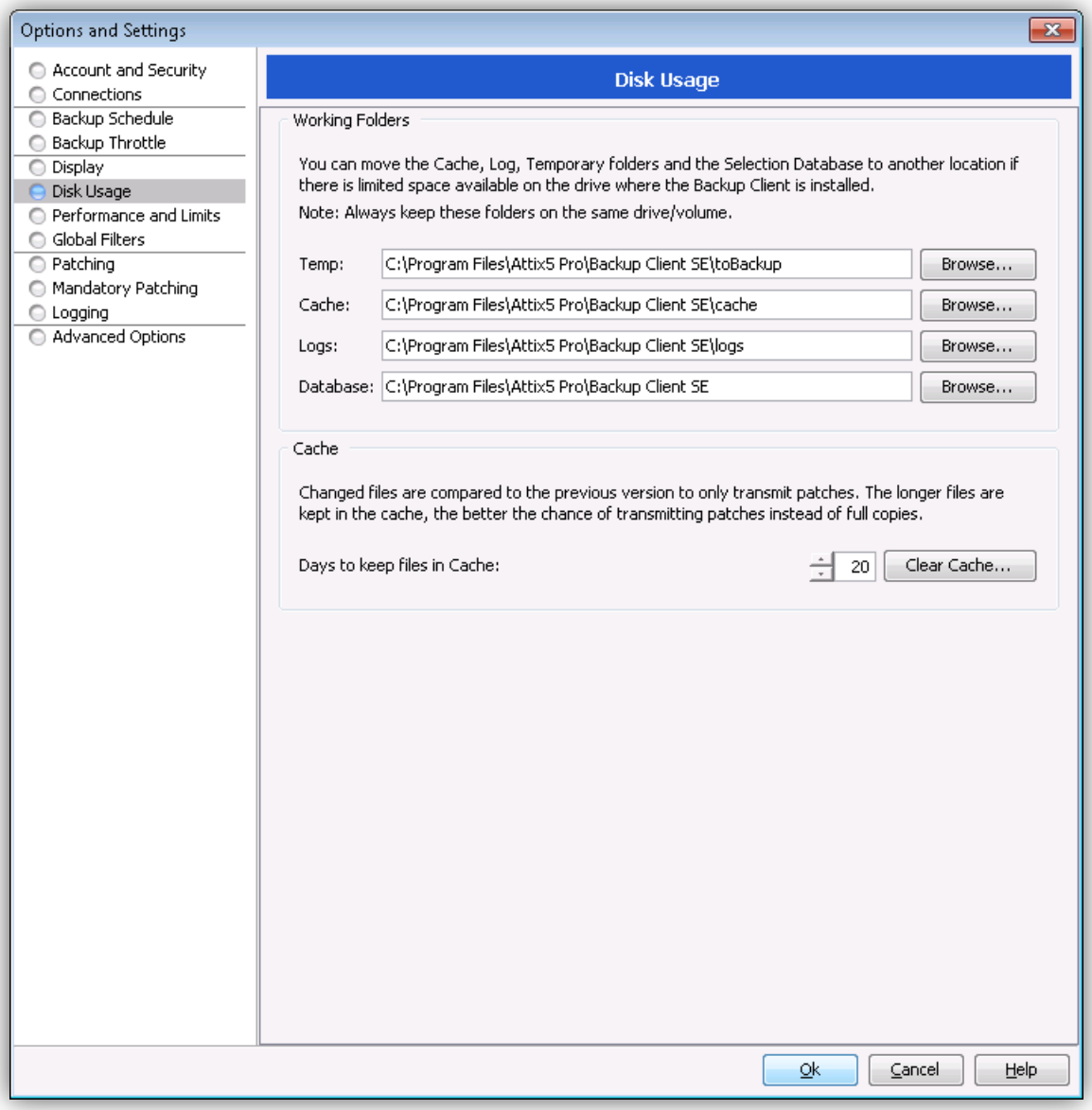
Disk Usage

You can use the Disk Usage page in the **Options and Settings** dialog box to:

- Move the working folders and cache to a different location
- Specify the number of days that files are to be kept in the cache



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The Disk Usage page consists of the following areas:

- Working Folders
- Cache

Working Folders area

If you have limited space on the drive running the Backup Client, you can move the **Cache**, **Logs** and **Temporary** folders as well as the selection database to another location.

The following locations are configurable in this area:

- **Temp** - Used as temporary workspace when the files are patched, compressed and encrypted.
- **Cache** - Keeps a local, compressed and encrypted, copy of the selected files for a specified number of days.
- **Logs** - Stores all backup and restore logs.
- **Database** - Compares the latest backup selection with the previous backup to determine the changes.

Warnings:

- *The* **Cache** *and* **Temp** *folders must reside on the same drive/volume.*
- *If the database or any of the folders are stored on a network share, please ensure that the Backup Service has the correct permissions to connect and write to that share.*

Cache area

When modifications are made to a file, the Backup Client only transmits changes to that file, as opposed to transmitting the complete file again. This is accomplished by the use of a local cache.

By default, recently modified files are kept in the Cache for 20 days, after which they will be deleted. Once a file has been flushed from the cache, a full copy will be backed up when any modifications are made to the file. The longer files are kept in the Cache, the better the chance of only transmitting patches instead of full copies and thus reducing the amount of data that needs to be transmitted. If there is limited disk space available, consider shortening the time files are kept in the cache.

Note: *If you specify 0 days for caching, patching is disabled. All files in the Cache will be deleted, and full copies of changed files will be transmitted to the server during each backup.*

To delete the current cache, use the **Clear Cache** button. If the cache is deleted, full copies of the selected files will be re-sent to the Storage Platform during the next backup.

Note: *The Backup Client will log the message* ***Doing monthly cache cleanup*** *once a month. This maintenance task is to ensure that there are no redundant files in the Cache.*

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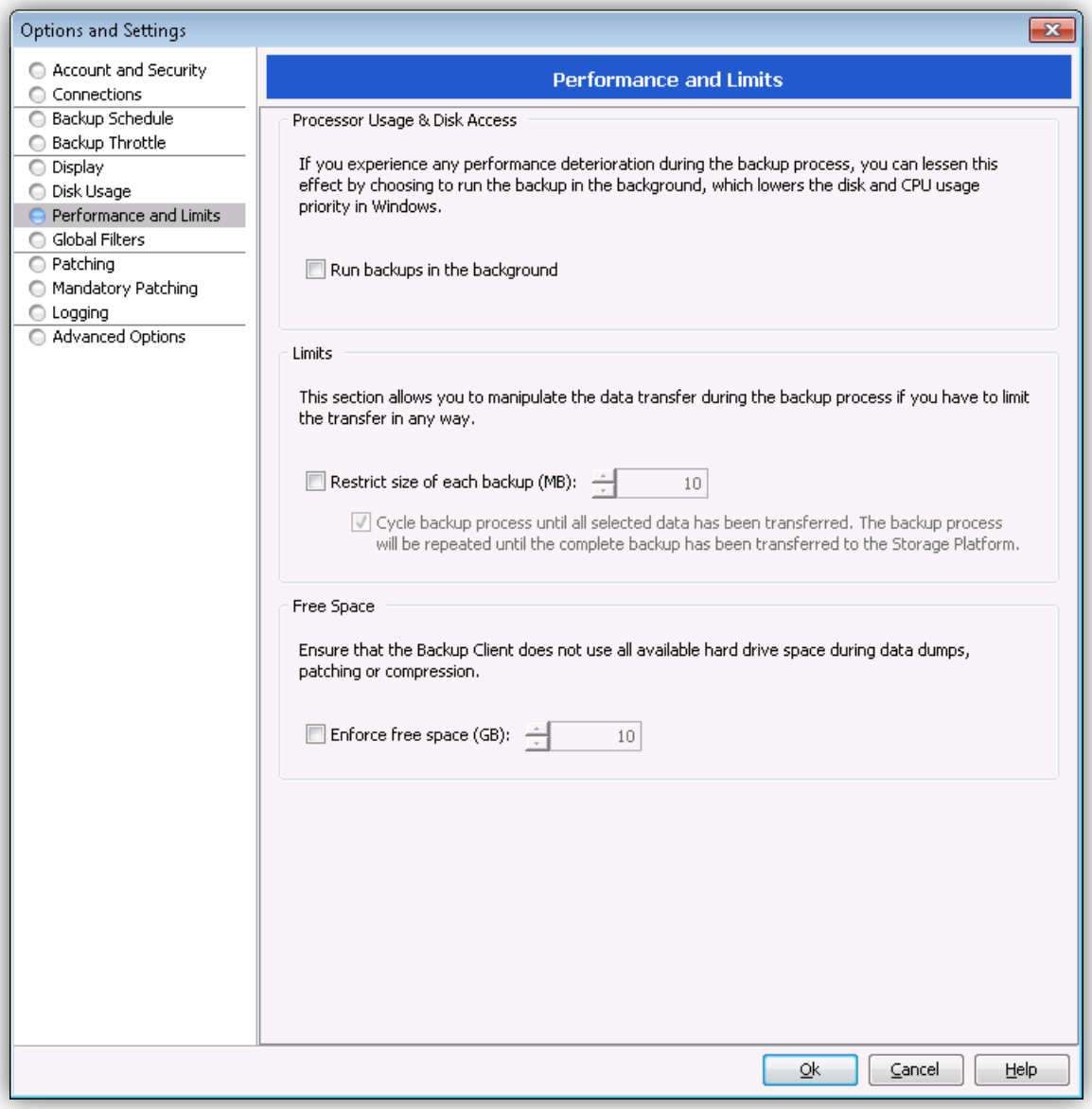
Performance and Limits

You can use the Performance and Limits page in the **Options and Settings** dialog box to:

- Enable/disable the **Run backups in the background** option (Windows Server 2008) or increase/decrease Backup Client processor and disk usage (Windows Server 2003)
- Set data transfer limits
- Ensure that a certain amount of free space is always available on the hard drive during data dumps, patching or compression


Options and Settings
Account and Security
Connections
Backup Schedule
Backup Throttle
Display
Disk Usage
Performance and Limits
Global Filters
Patching
Mandatory Patching
Logging
Advanced Options
Performance and Limits
Processor Usage & Disk Access
If you experience any performance deterioration during the backup process, you can lessen this effect by choosing to run the backup in the background, which lowers the disk and CPU usage priority in Windows.
Run backups in the background
Limits
This section allows you to manipulate the data transfer during the backup process if you have to limit the transfer in any way.
Restrict size of each backup (MB):
10
Cycle backup process until all selected data has been transferred. The backup process will be repeated until the complete backup has been transferred to the Storage Platform.
Free Space
Ensure that the Backup Client does not use all available hard drive space during data dumps, patching or compression.
Enforce free space (GB):
10
Ok
Cancel
Help

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The Performance and Limits page consists of the following areas:

- Processor Usage & Disk Access
- Limits
- Free Space

Processor Usage & Disk Access area

The Backup Client uses a fair portion of available processor power to patch, compress and encrypt files during the backup process. If you use the computer at the same time, you may experience some performance deterioration. To lessen this effect, you can choose to run backups in the background on Windows Server 2008 machines or lower the processor usage and/or disk access on Windows Server 2003 machines.

Windows Server 2008

On Windows Server 2008 machines, a **Run backups in the background** check box enables you to instruct the Client to run all backups in the background, thereby lowering the disk and CPU usage priority in Windows and allowing other applications to run faster.

*Note: The **Run backups in the background** check box is deselected by default.*

Windows Server 2003

On Windows Server 2003 machines, two sliders enable you to adjust the processor usage and disk access settings to limit performance deterioration.

*Warning: If you use the highest **Processor Usage** setting, it will affect server performance during the backup.*

*Note: If you use the **High Disk Access** setting, the Backup Client will continuously use all available disk access to read and write to the disk, ensuring that the process completes as quickly as possible. The process will take longer if this setting is lowered but other disk-intensive applications will perform better.*

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Limits area

Select the **Restrict size of each backup (MB)** check box and specify a maximum value to limit the total amount of data that may be transmitted to the Storage Platform during each backup.

Note: If this option is enabled, it may take several backups before all files are transmitted to the Storage Platform. This feature is especially useful when using a slow Internet connection and there are problems with transmitting large backups.

Cycle backup process... – You can use this setting in conjunction with the backup size restriction to cycle backups successively until all data included in the backup selection has been transmitted to the Storage Platform. This setting is only available if a backup size restriction has been specified.

Free Space area

To ensure that the Backup Client does not use all available hard drive space during data dumps, patching or compression, you can select the **Enforce free space** check box, and then specify the maximum amount of disk space the Client will be allowed to use.

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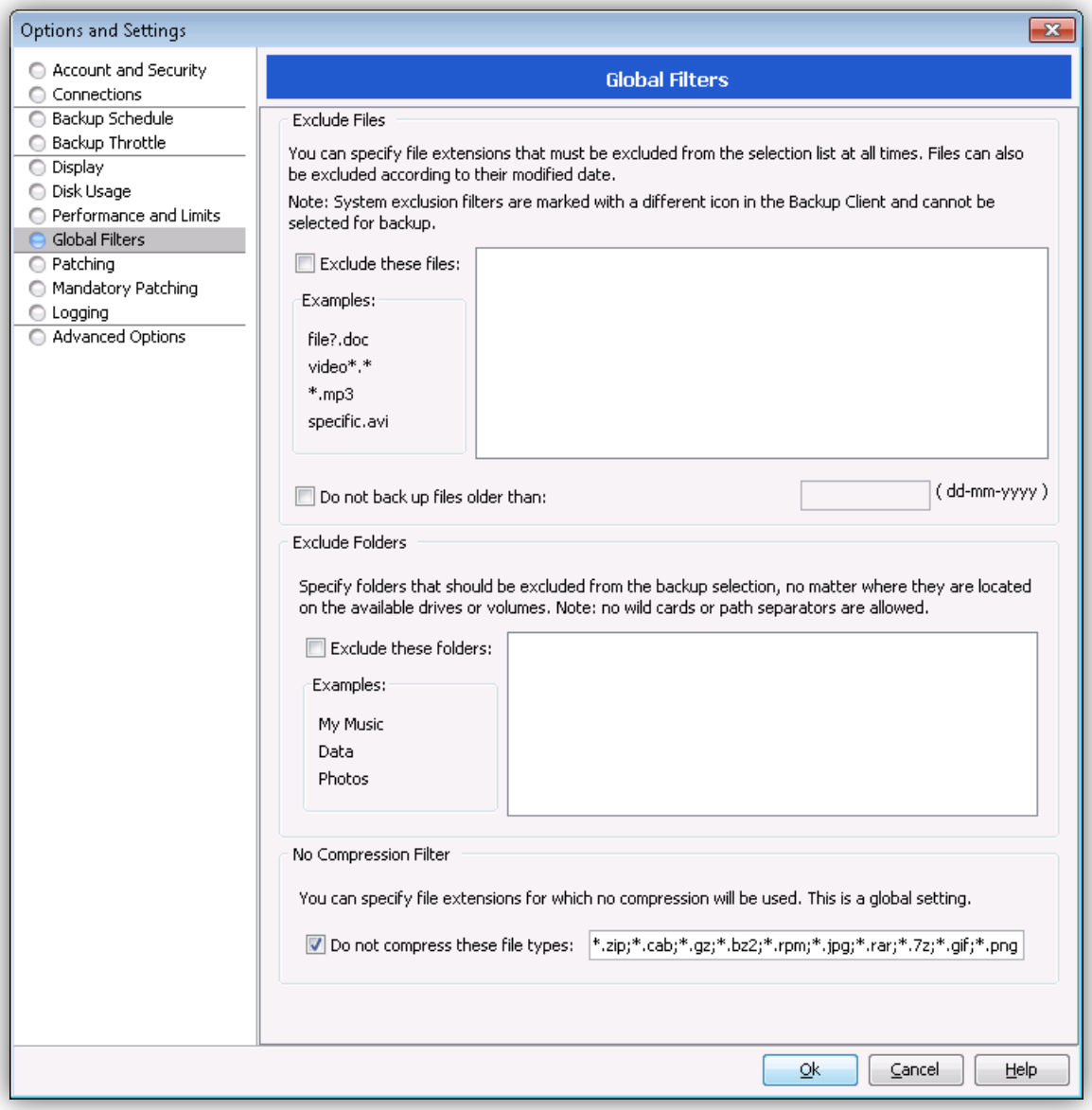
Global Filters

You can use the Global Filters page in the **Options and Settings** dialog box to:

- Exclude files globally
- Exclude folders globally
- Set up a No Compression Filter


Options and Settings
Account and Security
Connections
Backup Schedule
Backup Throttle
Display
Disk Usage
Performance and Limits
Global Filters
Patching
Mandatory Patching
Logging
Advanced Options
Global Filters
Exclude Files
You can specify file extensions that must be excluded from the selection list at all times. Files can also be excluded according to their modified date.
Note: System exclusion filters are marked with a different icon in the Backup Client and cannot be selected for backup.
Exclude these files:
Examples:
file?.doc
video*.*
*.mp3
specific.avi
Do not back up files older than:
(dd-mm-yyyy)
Exclude Folders
Specify folders that should be excluded from the backup selection, no matter where they are located on the available drives or volumes. Note: no wild cards or path separators are allowed.
Exclude these folders:
Examples:
My Music
Data
Photos
No Compression Filter
You can specify file extensions for which no compression will be used. This is a global setting.
Do not compress these file types:
.zip;.cab;*.gz;*.bz2;*.rpm;*.jpg;*.rar;*.7z;*.gif;*.png
Ok
Cancel
Help

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The Global Filters page in the **Options and Settings** dialog box consists of the following areas:

- Exclude Files
- Exclude Folders
- No Compression Filter

Exclude Files area

In this area, you can specify that files with certain file names, extensions or last modified dates be excluded from all backups.

To exclude files based on their file names or extensions:

1. Select the **Exclude these files** check box.
2. Type the file name(s) and/or file extension(s) in the box provided; separated by semicolons or listed beneath each other.

   *Tip: You can use wildcards. E.g. *.mp3 will exclude all MP3 files from backups.*

   *Example: To exclude all MP3 and AVI files, specify *.mp3 and *.avi in the text box. Separate entries with a semicolon or type each on a new line.*

3. Click **OK**.

To exclude files based on their 'last modified' dates:

1. Select the **Do not back up files older than** check box.
2. In the box provided, type the date in dd-mm-yyyy format.
3. Click **OK**.

Exclude Folders area

In this area, you can exclude certain folders from all backups.

To exclude folders:

1. Select the **Exclude these folders** check box.
2. Type the folder names in the box provided; separated by semi-colons or listed on separate lines.

   Notes:
   - *Wildcards and path separators are not supported in this area.*
   - *Entries are case sensitive.*

3. Click **OK**.

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No Compression Filter area

In this area, you can specify the file types that the Backup Client should not compress during the backup process.

Tip: Compression is not effective on all file types as some files may already be compressed or cannot be compressed at all. The Backup Client could spend some time and processing usage trying to compress these files. You can use this filter to specify a list of file extensions that the Client should not attempt to compress during the backup process. The list of file types already specified are types that typically do not compress well.

To exclude files from compression:

1. Select the **Do not compress these file types** check box.
2. Type the file extensions in the box provided, separated by semi-colons.
3. Click **OK**.

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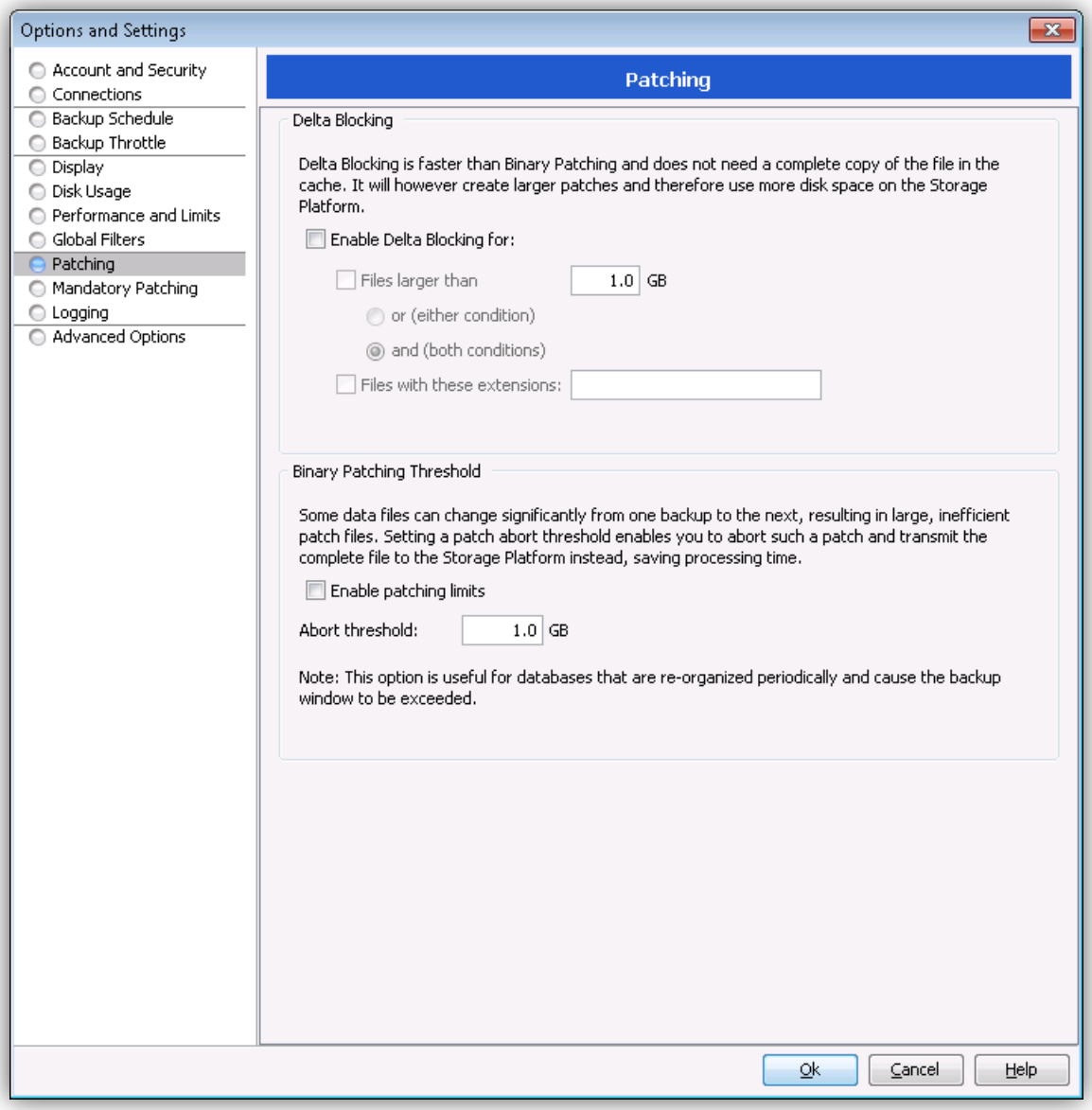
Patching

You can use the Patching page in the **Options and Settings** dialog box to:

- Enable/disable Delta Blocking
- Enable Binary Patching limits


Options and Settings
Account and Security
Connections
Backup Schedule
Backup Throttle
Display
Disk Usage
Performance and Limits
Global Filters
Patching
Mandatory Patching
Logging
Advanced Options
Patching
Delta Blocking
Delta Blocking is faster than Binary Patching and does not need a complete copy of the file in the cache. It will however create larger patches and therefore use more disk space on the Storage Platform.
Enable Delta Blocking for:
Files larger than
1.0
GB
or (either condition)
and (both conditions)
Files with these extensions:
Binary Patching Threshold
Some data files can change significantly from one backup to the next, resulting in large, inefficient patch files. Setting a patch abort threshold enables you to abort such a patch and transmit the complete file to the Storage Platform instead, saving processing time.
Enable patching limits
Abort threshold:
1.0
GB
Note: This option is useful for databases that are re-organized periodically and cause the backup window to be exceeded.
Ok
Cancel
Help

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The Patching page in the **Options and Settings** dialog box consists of the following areas:

- Delta Blocking
- Binary Patching Threshold

Delta Blocking area

Delta Blocking is an alternative to Binary Patching and compares changes on a block level. It is significantly faster than Binary Patching and does not require a complete copy of a file in the Cache to calculate the patch, only a footprint file. The footprint file requires very little free disk space - 0,0006% of the original file. However, Delta Blocking patches are much larger than Binary patches.

Note: Please read through this section before enabling this option in the Backup Client.

To enable Delta Blocking:

1. Select the **Enable Delta Blocking for** check box.
2. The Delta Blocking file selection criteria can be set in two ways: by file size or file type. Select the applicable condition(s) and supply the necessary information. Any recently changed files not matching these criteria will be patched using Binary Patching.

Warning: *Some database files may not be suitable for Delta Blocking since data is shifted at the beginning of the file. When this happens, it will result in a patch as large as the complete file. It is advisable to closely monitor the sizes of the patches when Delta Blocking is enabled and disable it if it turns out to be ineffective.*

Binary Patching Threshold area

Binary Patching is the most effective form of patching. It is CPU-intensive but will deliver the smallest patches. The process is only possible if a complete copy of an older version of the file is available in the Cache.

Note: Binary Patching is enabled by default and nothing needs to be configured on this tab for normal use.

Enabling patching limits: It is possible that a file could be modified in such a way that it becomes impractical to patch it. An example would be a database that is re-indexed.

In such a case, the patching can take extremely long (it may exceed the backup window) and will eventually create a patch that is the same size as the complete file. It would be better to abort the patching and compress the new file instead. The patching limit indicates when patching will be aborted and the complete file compressed and resent to the Storage Platform instead.

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To specify patching limits:

1. Select the **Enable patching limits** check box.
2. In the **Abort threshold** box, specify the abort threshold (in gigabytes).

Notes:

- *When this limit is reached, patching will be aborted and the complete file will be compressed and resent to the Storage Platform.*
- *Patching limits should only be enabled if you have severe patching problems with large files.*

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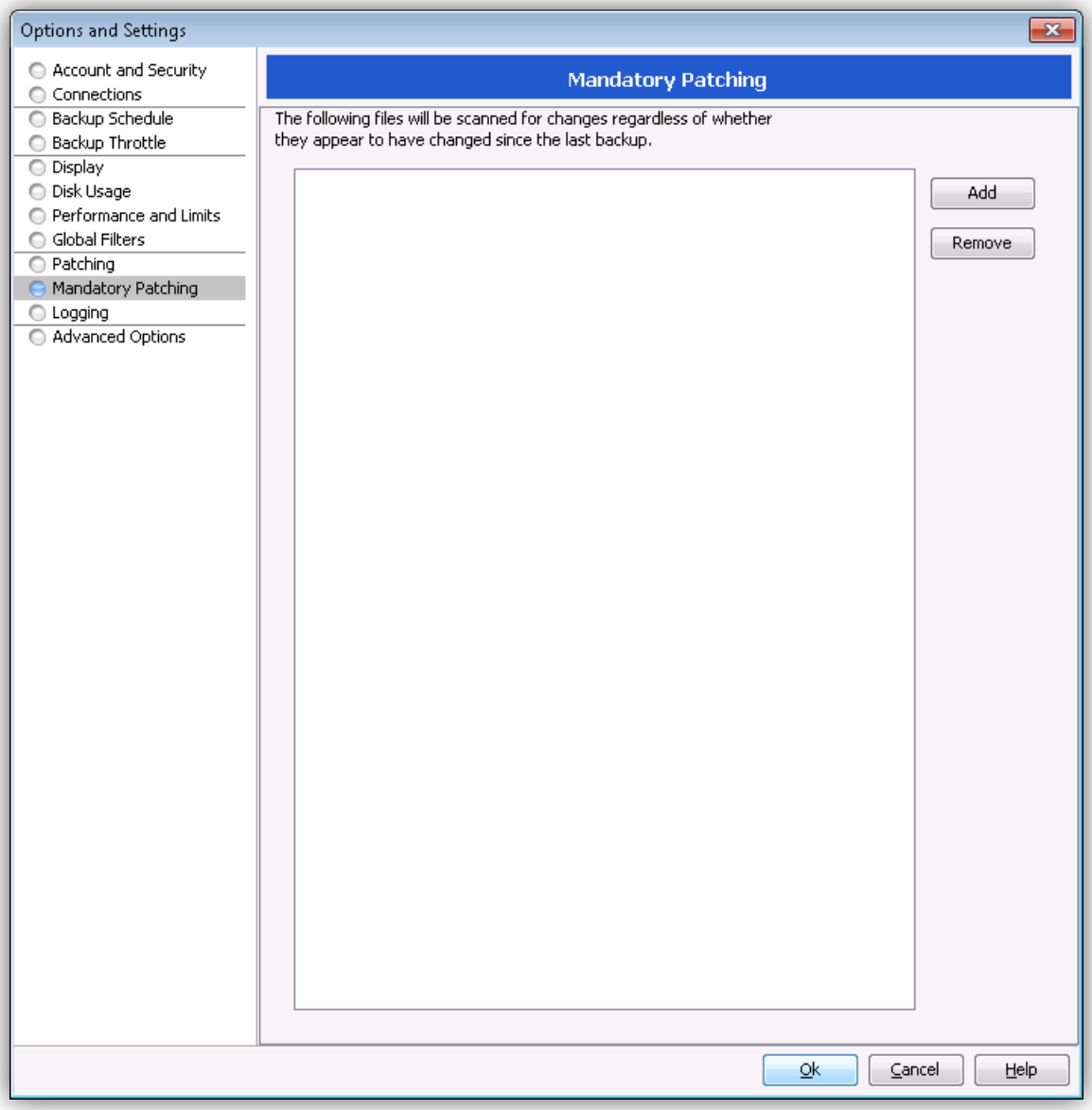
Mandatory Patching

You can use the Mandatory Patching page in the **Options and Settings** dialog box to instruct the Backup Client to scan certain files, regardless of whether or not they appear to have changed since the last backup (i.e. even if the file's timestamp remains the same).

> ***Tip:*** *This is useful in situations where files are held open by an application (internally the file changed, but the change is not reflected in the last modified date on the file system or in the size of the file itself).*



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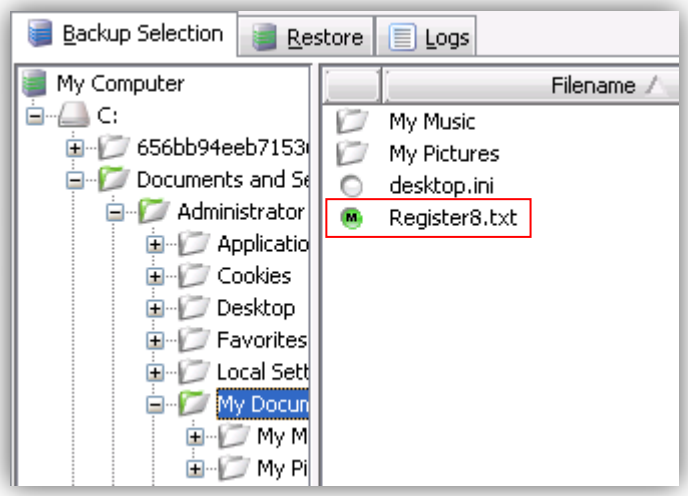
Files selected for mandatory patching display on the Backup Selection tab with a green icon containing the letter "M": .



To select files for mandatory patching:

1. Click the **Add** button.
2. In the **Open** dialog box that appears, navigate to and select the file(s), and then click **Open**. The file(s) location(s) will display in the Mandatory Patching list.
3. Click **OK** to save your settings.

*Tip: Select more than one file at a time by holding down the **SHIFT** key and selecting the files with your keyboard or mouse.*

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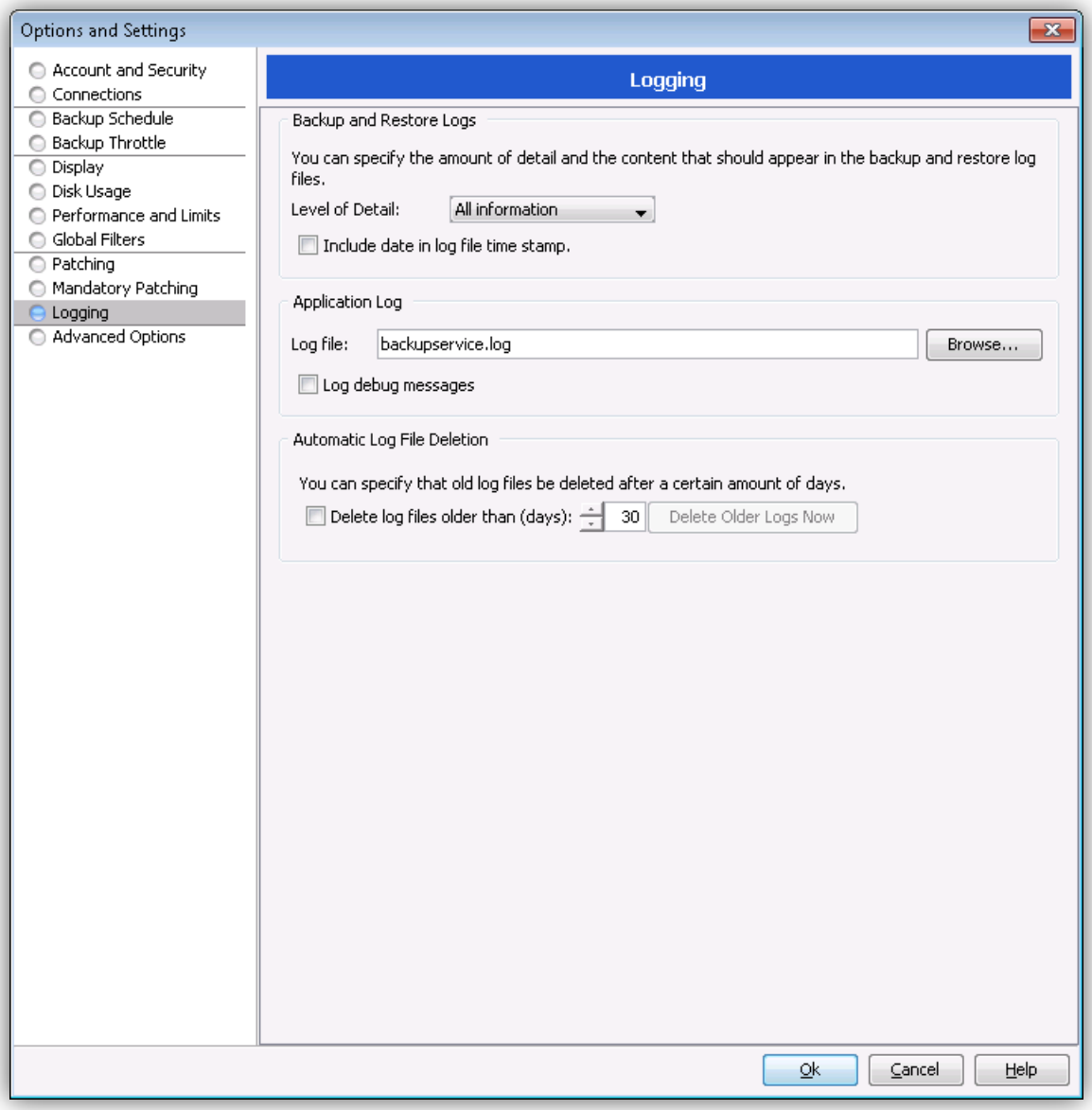
Logging

You can use the Logging page in the **Options and Settings** dialog box to specify your logging preferences.

Modifiable logging settings include:

- Level of detail included
- Date inclusion/exclusion in time stamp
- Application log location and debug inclusion/exclusion
- Log file retention period



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The Logging page in the **Options and Settings** dialog box consists of the following areas:

- Backup and Restore Logs
- Application Log
- Automatic Log File Deletion

Backup and Restore Logs area

In this area, you can specify the level of information to be included in the log files by selecting one of the options provided:

- All information (logs all messages)
- Suppress detail
- Log warnings and errors (logs *only* warnings and errors)

Select the **Include date in log file time stamp** check box to add the date to every line in each log file.

Application Log area

In this area, you can specify where the Backup Client's application log file should be saved and whether or not debug messages should be logged.

Automatic Log File Deletion area

In this area, you can enable a log file retention period by specifying that the Backup Client delete files older than a particular number of days. To do this, select the **Delete log files older than** check box, and then specify the number of days in the box provided.

*Tip: To delete all logs older than the specified number of days immediately, click the **Delete Older Logs Now** button.*

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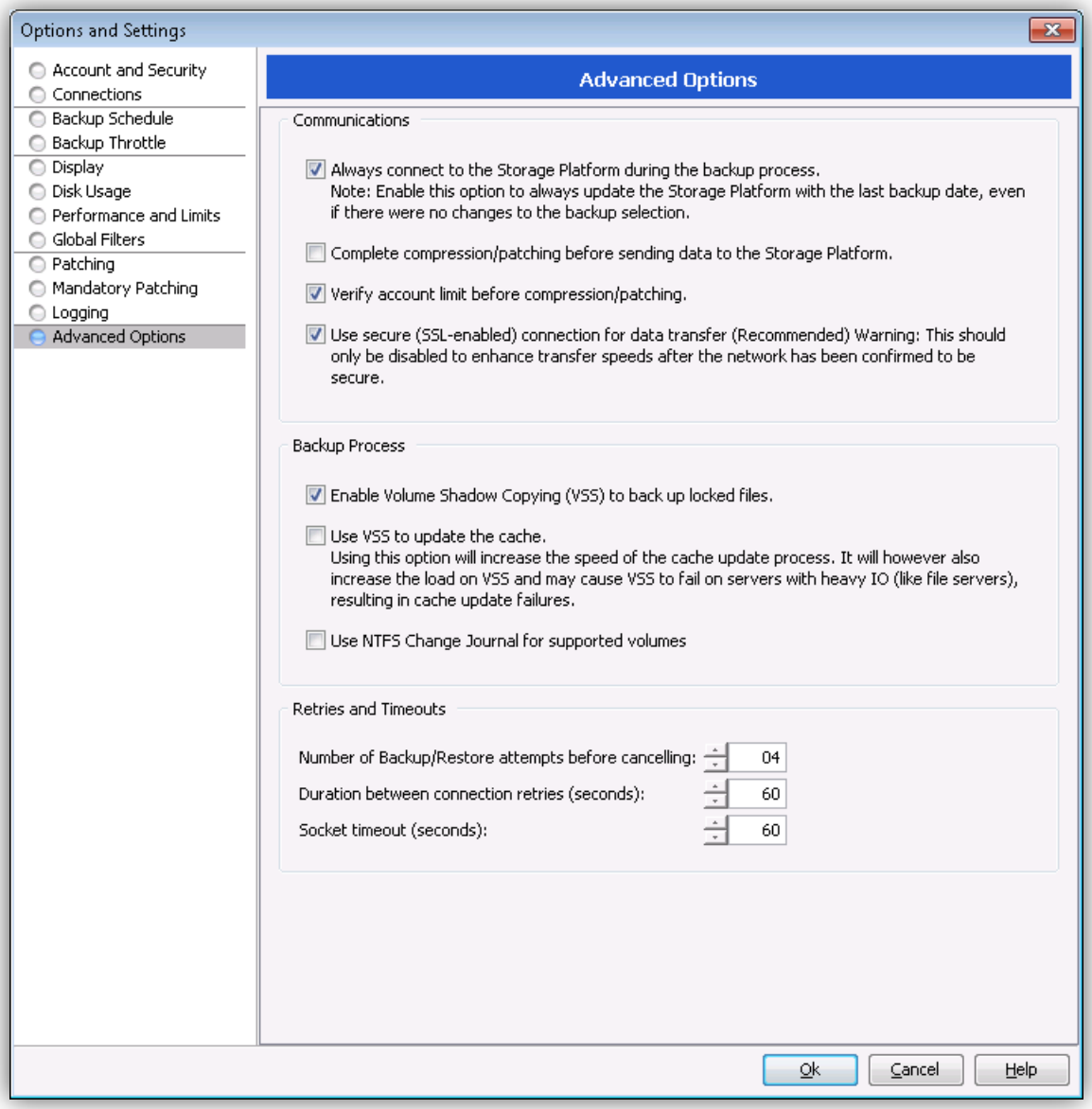
Advanced Options

You can use the Advanced Options page in the **Options and Settings** dialog box to configure the following Backup Client options:

- Storage Platform communication
- Backup process
- Retries and timeouts


Options and Settings
Account and Security
Connections
Backup Schedule
Backup Throttle
Display
Disk Usage
Performance and Limits
Global Filters
Patching
Mandatory Patching
Logging
Advanced Options
Advanced Options
Communications
Always connect to the Storage Platform during the backup process.
Note: Enable this option to always update the Storage Platform with the last backup date, even if there were no changes to the backup selection.
Complete compression/patching before sending data to the Storage Platform.
Verify account limit before compression/patching.
Use secure (SSL-enabled) connection for data transfer (Recommended) Warning: This should only be disabled to enhance transfer speeds after the network has been confirmed to be secure.
Backup Process
Enable Volume Shadow Copying (VSS) to back up locked files.
Use VSS to update the cache.
Using this option will increase the speed of the cache update process. It will however also increase the load on VSS and may cause VSS to fail on servers with heavy IO (like file servers), resulting in cache update failures.
Use NTFS Change Journal for supported volumes
Retries and Timeouts
Number of Backup/Restore attempts before cancelling: 04
Duration between connection retries (seconds): 60
Socket timeout (seconds): 60
Ok
Cancel
Help

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The Advanced Options page in the **Options and Settings** dialog box consists of the following areas:

- Communications
- Backup Process
- Retries and Timeouts

Communications area

Always connect to the Storage Platform during the backup process

When the **Always connect to the Storage Platform…** check box is selected, the Backup Client will connect to the Storage Platform during each backup, whether or not changes were made. This updates the Last Backup date stamp, even if there were no changes made to the backup set, ensuring that the Storage Platform always reflects the latest backup date.

Complete compression/patching before sending data to the Storage Platform

Select this option if you do not wish to make use of the concurrent backup processing feature to speed up the backup process. (Concurrent backup processing is typically needed when using a dial-up Internet connection. For more information, see "Concurrent backup processing" later in this chapter.) With this setting enabled, the Backup Client will compress all new files and patch all modified files before starting to transmit data to the Storage Platform.

Verify account limit before compression/patching

With this setting enabled, the Backup Client verifies the Backup Account limit on the Storage Platform before starting compression and/or patching. This is useful as it will flag Account limit issues before starting these possibly time-consuming processes.

Use secure (SSL-enabled) connection for data transfer…

This option is selected by default, enabling SSL encryption for Client-to-StorageServer data transfers. Deselecting this option disables SSL encryption for data transfer. This enhances transfer speeds but should only be done within a secure network environment.

Notes:

- *Disabling this feature will only have an effect on security for the actual data transfer and not the encryption of the data on the Storage Platform.*
- *Secure data transfer connections can only be disabled if the StorageServer has been configured to accept non-secure connections. If the StorageServer cannot accept non-secure connections, an SSL-enabled connection will automatically be used instead.*

Warning: *If you wish to disable SSL encryption, please ensure that the backup environment is secure.*

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Backup Process area

Enable Volume Shadow Copying to back up locked files

Microsoft Volume Shadow Copy Service (VSS) provides a solution by creating a snapshot of data at any given point in time without any interruption to any applications. Using this option enables the backup of open or locked files.

Warning: *Please use relevant plug-ins to back up databases.*

Use VSS to update the cache

Using this option will increase the speed of the cache update process.

Warning: *This setting will increase the load on VSS and may cause VSS to fail on servers with heavy I/O (e.g. StorageServers), resulting in cache update failures.*

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Use NTFS Change Journal for supported volumes

Select this check box to enable the Backup Client to use the NTFS Change Journal to determine the file and folder changes on the drive instead of performing a full scan on the drive before every backup. For more information, see "Microsoft NTFS Change Journal use" under *Advanced tools* later in this chapter.

Tip: This is especially useful when backing up large selections that would result in lengthy scanning processes.

Retries and Timeouts area

Number of Backup/Restore attempts before cancelling

By default, the Backup Client tries to connect to the Storage Platform four times before cancelling the backup process. You are advised to increase the number of attempts when using a slow Internet connection. The backup will continue from the previous point of failure and not resend the entire backup.

Duration between connection retries

By default, if the connection is dropped, the Backup Client will try to reconnect to the Storage Platform after 60 seconds. This setting enables you to increase/decrease the duration between the retries.

Socket timeout

If the Backup Client is connected to the Storage Platform and there is no communication between the two, the time specified in this box (in seconds) is how long the Backup Client will stay connected before dropping the connection. The default socket timeout is 60 seconds.

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Advanced tools

SE includes tools that allow advanced users to modify, enhance and streamline the Backup Client.

Concurrent backup processing

SE supports concurrent backup processing. Files will be transmitted to the Storage Platform using a second thread as soon as the files are compressed or patched while the backup process continues to compress/patch files using the original thread in the background.

This method of backup processing is the default method and will improve the total backup speed significantly. If, however, you wish to disable this method, you can deselect the **Complete compression/patching before sending data to the Storage platform** check box on the Advanced Options page in the **Options and Settings** dialog box. For more information, see "Advanced Options" earlier in this chapter.

Add network volume

The Backup Client provides the option to add network volumes and include files located in these locations to the backup selection.

Warning: *Please ensure that the backup service is started by a user with sufficient permissions to browse and access the network shares to be included in the backup selection.*

The Backup Client will only be able to back up files from a network volume after the share has been accessed and authenticated by the server on which the Backup Client is installed.

To add a network volume:

1. On the **Tools** menu, click **Add Network Volume**.
2. In the **UNC Path** box, type the UNC network path, starting with "\\". Alternatively, use the **Browse** button to browse to the network path.

Example: `\\storageserver\documents`

On the **Backup Selection** tab, network volumes are listed in the left-hand pane, accompanied by a network icon .

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Files in the network volume can now be included or excluded. For more information on how to include and exclude files, see S*electing data to back up* in Chapter 5, “Backups.” If some files are included for backup, the icon will display with a green tint: . If the entire share is included it will change to a green icon: . Excluded network volumes are marked with red network icons: .

To remove a network volume from the Backup Client:

1. Right-click on the entry in the left-hand pane.
2. Click **Remove Network Volume**.

The network volume will be removed from the left-hand pane.

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Remote Management

Remote Management enables the Backup Administrator to remotely access and configure the Backup Client using the Storage Platform Console.

To enable Remote Management:

1. On the **Tools** menu, click **Remote Management**.
2. In the **Remote Management Settings** dialog box that appears, select the **Enable Remote Management** check box.
3. In the Connection area, ensure that the port number in the **Port** box is correct (9091 is specified by default). If incorrect, modify as required.
4. If the server has multiple IP addresses available, you can specify whether the Remote Service must bind to all available IP addresses or to only one IP address.
5. In the Access area, select the access credentials to be allowed.

   Notes:
   - ***Allow SP controlled access*** *enables Backup Administrators with the correct access permissions to use their Storage Platform User Access Management usernames and passwords to connect to and administer this Backup Client. If you clear this check box, Storage Platform administrators will not have remote access.*
   - *Select* ***Allow custom access*** *and supply a username and password if you do not wish to make use of the above-mentioned Storage Platform Access Accounts. These custom access credentials must be specified in the Storage Platform Console for its user to gain remote access.*

6. Click **OK** to save the settings. Services will restart automatically to apply the settings.

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Multiple Backup Sets

When a backup is initiated, the backup selection is sent to the Storage Platform as a "backup set"; a set of *included* files and folders. You can restore the entire backup set (all its files and folders structured as they were at the time of backup), or restore individual files and/or folders within it.

The first backup selection you make in the SE Client is automatically saved as the "default backup set". For more information, see *Selecting data to back up* in Chapter 5, "Backups." You may, however, create more than one backup set. This enables you to back up different data selections at different times.

> ***Example:*** *A full backup of all data on a server can be scheduled to run once a week (e.g. over the weekend, when there are no resource limitations) and another backup of only the SQL database on that same server can be scheduled to run every day. This ensures that the SQL database is backed up regularly, using minimal resources, and that the entire server is still backed up but at more convenient and practical time intervals.*

> ***Note:*** *A maximum of 10 backup sets are allowed (including the default backup set).*

To create a new backup set:

1. On the **Tools** menu, point to **Additional Backup Sets** and then click **Add**. Alternatively, click the **Add** button above the **Backup Selection**/**Restore**/**Logs** tabs.

   > ***Note:*** *The **Add** button will only be available above the Client tabs when at least two backup sets exist. If this is your first addition, you need to use the **Tools** menu.*

2. In the **Backup set name** box, type a display name for the set, and then click **OK**.
3. Ensure that the new name is selected in the **Backup Set** drop-down box.
4. Configure the schedule as desired. For detailed instructions on how to schedule backups, see *Scheduling automatic backups* in Chapter 5, "Backups."

   > ***Note:*** *If backup set schedules overlap due to manual schedule configuration or overlapping backup windows, the backups will be placed in a queue. Three seconds after the first backup in the queue is complete, the next will run. Backup sets are queued alphanumerically. If, however, two or more backups are scheduled for the same backup set and their backup windows overlap, the first backup will run to completion and duplicates will be excluded from the queue.*

5. Click **OK**. The **Options and Settings** dialog box will close and the SE Client will display the new backup set name in a **Backup Set** drop-down box above the **Backup Selection** tab.

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> *Note: The **Backup Set** drop-down and **Add** and **Schedule** buttons only display in the SE Client if more than one backup set is enabled. If only the default backup set exists, these items will not display.*

The **Backup Selection**, **Restore** and **Logs** tabs now display information relevant to the new backup set and they can be used to configure, restore from and monitor it accordingly.

6. Select the data to be backed up in this backup set.

Included data will be backed up at the times specified in the backup set's backup schedule and can be restored using the **Restore** tab.

To rename a backup set:

1. Click the **Manage** button above the **Backup Selection/Restore/Logs** tabs.
2. Select the backup set name in the **Backup Set** drop-down list.
3. Click the **Rename** button.
4. Type the new name in the **Backup set name** box.
5. Click **Ok**.

To modify a backup set's backup schedule:

1. Click the **Manage** button above the **Backup Selection/Restore/Logs** tabs.
2. Select the backup set name in the **Backup Set** drop-down list.
3. Configure the schedule. (See *Scheduling automatic backups* in Chapter 5, "Backups.")
4. Click **Ok**.

To delete a backup set:

1. Click the **Manage** button above the **Backup Selection/Restore/Logs** tabs.
2. Select the backup set name in the **Backup Set** drop-down list.
3. Click the **Delete** button.
4. In the Confirmation dialog box that appears, click **Yes**.
5. Click **Ok**.

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Plug-ins and Multiple Backup Sets

The following plug-ins function only on the default backup set:

- Oracle
- Domino
- MS Exchange Server
- Exchange Single Mailbox Recover (SMR)
- SIMS
- Sybase
- System State Backup
- Script

The following plug-ins function on additional backup sets if they have items included for backup:

- Exchange Single Item Recovery (SIR)
- SharePoint
- MS SQL Server
- VSS Database
- VMware
- System State (using Wbadmin)

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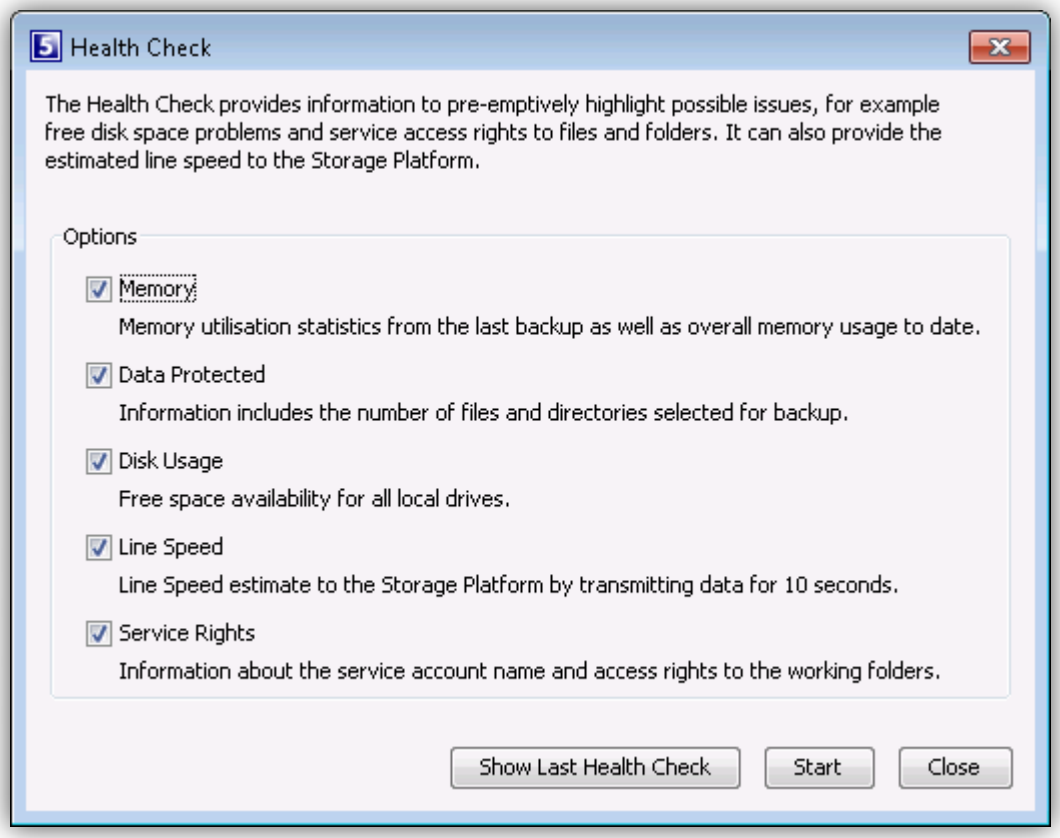
Health Check

The Backup Client Health Check provides information to highlight possible issues before backup (e.g. free disk space or file/folder access problems). It can also provide the estimated line speed to the Storage Platform.


Health Check
The Health Check provides information to pre-emptively highlight possible issues, for example free disk space problems and service access rights to files and folders. It can also provide the estimated line speed to the Storage Platform.
Options
Memory
Memory utilisation statistics from the last backup as well as overall memory usage to date.
Data Protected
Information includes the number of files and directories selected for backup.
Disk Usage
Free space availability for all local drives.
Line Speed
Line Speed estimate to the Storage Platform by transmitting data for 10 seconds.
Service Rights
Information about the service account name and access rights to the working folders.
Show Last Health Check
Start
Close

The following options are available:

- **Memory** - Memory utilisation statistics from the last backup as well as overall memory usage to date.
- **Data Protected** - Information includes the number of files and directories included in the backup selection.
- **Disk Usage** - Free space availability for all local drives.
- **Line Speed** - Line Speed estimate to the Storage Platform (determined by transmitting data for 10 seconds).
- **Service Rights** - Information about the service account name and access rights to the working folders.

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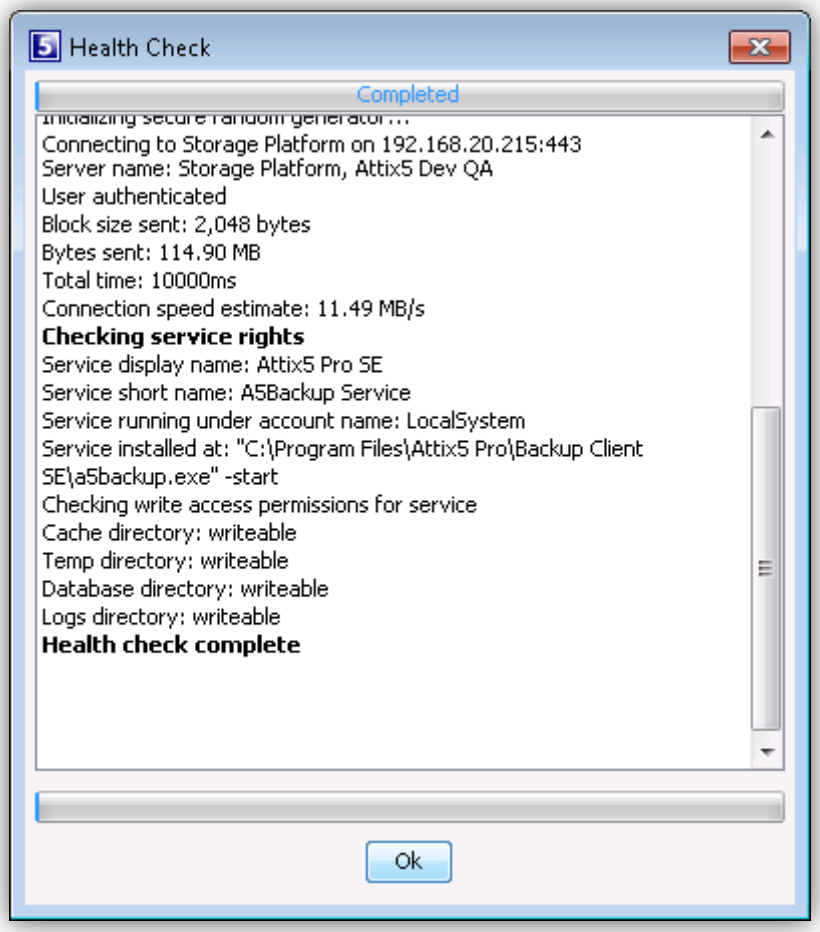
You can specify which checks to run by selecting or clearing the relevant check boxes in the Options area. Use the **Show Last Health Check** button to see the last report. You can **Print** and/or **Export** the Health Check reports.

To run a health check:

1. On the **Tools** menu, click **Health Check**.
2. In the **Health Check** dialog box that appears, specify which checks to run by selecting or clearing the check boxes next to the options. Five checks are available (see above).
3. Click the **Start** button to begin the health check process. The **Health Check** dialog box appears, displaying the progress of the health check until completion.


Health Check
Completed
Connecting to Storage Platform on 192.168.20.215:443
Server name: Storage Platform, Attix5 Dev QA
User authenticated
Block size sent: 2,048 bytes
Bytes sent: 114.90 MB
Total time: 10000ms
Connection speed estimate: 11.49 MB/s
Checking service rights
Service display name: Attix5 Pro SE
Service short name: A5Backup Service
Service running under account name: LocalSystem
Service installed at: "C:\Program Files\Attix5 Pro\Backup Client SE\a5backup.exe" -start
Checking write access permissions for service
Cache directory: writeable
Temp directory: writeable
Database directory: writeable
Logs directory: writeable
Health check complete
Ok

4. When the message: “Health check complete” displays, click **OK**.

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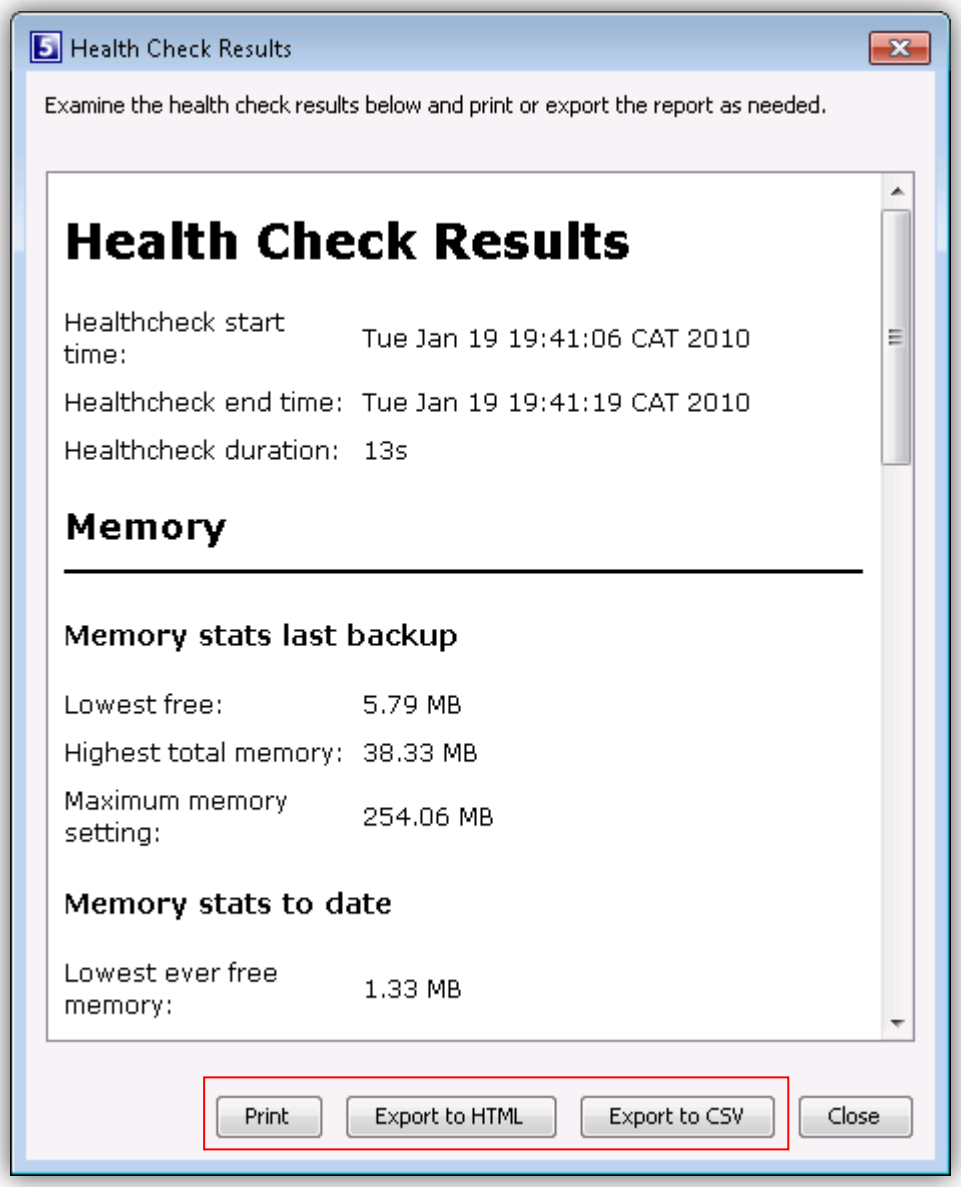
The Health Check results display in a new dialog box with options to print, export to HTML and export to CSV.


Health Check Results
Examine the health check results below and print or export the report as needed.
Health Check Results
Healthcheck start time: Tue Jan 19 19:41:06 CAT 2010
Healthcheck end time: Tue Jan 19 19:41:19 CAT 2010
Healthcheck duration: 13s
Memory
Memory stats last backup
Lowest free: 5.79 MB
Highest total memory: 38.33 MB
Maximum memory setting: 254.06 MB
Memory stats to date
Lowest ever free memory: 1.33 MB
Print
Export to HTML
Export to CSV
Close

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Backup Snapshots

The Backup Snapshot feature enables you to create a backup of all items included in your backup selection and send it to a disk drive. This snapshot data can then be moved to the Storage Platform.

You can use this feature to reduce the initial backup window if there is a large amount of data to be transferred, typically over a slow Internet/network connection. A similar procedure enables you to restore a large amount of data (e.g. during a disaster recovery). For more information about restore snapshots, see "Restore Snapshots (Disaster recovery)" below.

Warnings:

- *This procedure should only be performed with the assistance of the Backup Administrator.*
- *Ensure that you have an active Backup Account.*
- *It is advised to perform a test backup that transfers only a small amount of data before beginning the Backup Snapshot process.*

To export a Backup Snapshot:

1. On the **Tools** menu, point to **Snapshot**, and then click **Export Backup Snapshot**.
2. Select **The next backup must be a Snapshot backup**.
3. Specify a destination in the box provided (**C:\Backups\Export\Snapshot-Backup** is specified by default on Windows Serve r 2008 machines.)
4. Click **OK**.
5. Initiate a backup.

The Snapshot data is now stored in the location specified in step 3 above and can be moved to the Storage Platform. The Backup Administrator can then import the snapshot data to the StorageServer using the Storage Platform Console. (For more information, please refer to the Storage Platform Console User Manual.)

Note: *The Backup Account will be disabled at this point to ensure that the Snapshot data is the most recent. Once the data has been successfully imported to the Storage Platform, the Account will be enabled automatically and backups can proceed as usual.*

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Restore Snapshots (Disaster recovery)

The Restore Snapshot feature enables you to restore large amounts of data from a locally connected device to a machine via the Backup Client.

> ***Note:*** *Before you can perform the steps outlined below, the snapshot data needs to be exported from the StorageServer to a mobile storage device by a Backup Administrator. For more information, please refer to the Storage Platform Console User Manual.*

To restore data from a Snapshot:

1. Connect the mobile storage device containing the snapshot data to the Client machine or to a Local Area Network so that it has access to the Client machine.
2. On the **Tools** menu, point to **Snapshot**, and then click **Import Restore Snapshot**.
3. Select whether you wish to restore the data from a disk drive or recovery server.
   a. If restoring from disk, select the **Show Restore Snapshot(s) in Restore panel** check box and then specify the path to the data in the **Snapshot location** box.

      > ***Warning:*** *The default snapshot location specified is: C:\Backups\Import\Snapshot-Restore. If you wish to use this location, you need to create the folder structure on the machine and then paste the snapshot data onto the* ***Snapshot-Restore*** *folder. This folder is not created automatically. Alternatively, you can use the* ***Browse*** *button to browse to the location in which you have saved the snapshot data.*

      > ***Note:*** *You need to specify the snapshot data's parent folder, NOT the snapshot folder itself. (E.g. If your snapshot data folder is called* ***20100506124347*** *and you've pasted it to your Desktop, you need to specify* ***C:\Users\Administrator\Desktop*** *in the* ***Snapshot location*** *box, NOT* ***C:\Users\Administrator\Desktop\20100506124347****.)*

   b. If restoring from a recovery server, select the **Do restores from recovery server** check box and then specify the server address and port number in the boxes provided. If using a proxy server, select the **Use proxy settings for recovery** check box.

      > ***Note:*** *This option can only be used if the Backup Administrator has prepared a recovery server.*
4. Click **OK**.

The Snapshot data will display as an entry in the Restore tree, enabling you to browse a directory of its contents and restore files and folders. For more information, see Chapter 6, "Restores."

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Command-line backups and restores

You can use the command-line interface (CLI) to run the SE Setup Wizard remotely, enable SE Remote Management and to send a wide range of backup and restore commands to any SE Backup Client connected to a LAN.

The CLI.bat file is included with each SE installation file. Using this file, you can connect to any SE Backup Client in your organisation, should you prefer to manage Clients from a central location.

Warning: *The SE Backup Client is required and must be installed on the computer using the CLI.bat file before the following commands can be used.*

To configure a Backup Account or Remote Management settings:

Run `cli -configure {account|remote}`.

Usage:

```
cli {restore|dates|status|backup|cancel}
        [-rd restoredateidx] [-rp restorepath | -original]
        [-fd filterdate] [-fp filterpath] [-fext filterext]
        [-backupset backupsetguid] [-compression on|off] [-overwrite]
        [-nopermissions] [-noemptyfolders]
```

Notes:

- *`-rp <restorepath>` must be an absolute path and the service must have full write access to the directory.*
- *When restoring, the default policy is to skip existing files. Specify `-overwrite` to overwrite existing files.*
- *Specify `-nopermissions` to not restore file and folder permissions.*
- *Specify `-noemptyfolders` to not restore file empty folders (useful with –fext).*

Examples:

- *To start a backup of the default backup set:*
  `cli backup`
- *To start a backup of a specific backup set:*
  `cli backup -backupset ac0be91b-08b2-461d-97618c529f46`
- *To view the status of a task currently being performed by the backup service:*
  `cli status`
- *To start a restore from the last backup made, extracting files to the default restore temporary directory:*
  `cli restore`
- *To view a list of available backup dates to restore from:*
  `cli dates`
- *To restore from a different date index obtained with the `dates` command:*
  `cli restore -rd 2`

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Examples continued...

- *To restore all .XLS files starting with the path C:\Documents and Settings and newer than 1 April 2002:*

```
cli restore -fd 04/01/2002 -fext .XLS -fp "C:\Documents and Settings"
```

- *To cancel a task:*

```
cli cancel
```


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Profiling

Profiling enables your Backup Administrator to propagate certain client-side settings from the Storage Platform to your Backup Client.

It can be used to enforce the following settings:

- Backup schedules
- Inclusions and exclusions
- Filters
- Most options and settings accessible via the **Tools** menu

Note: Profiled settings take priority over settings specified in the Backup Client. When the Backup Client connects to the Storage Platform, it receives a list of all profiled settings. These changes are implemented in the Backup Client. You can, however, connect to the Storage Platform and update profiled settings manually.

To update profiled settings manually:

1. On the **Tools** menu, click **Options**.
2. On the **Account and Security** page of the **Options and Settings** dialog box, click the **Retrieve Settings** button.

The Backup Client will retrieve any profiled settings from the Storage Platform and update its options and settings accordingly.

Note: Profiled settings are greyed out, and cannot be modified from within the Backup Client.

Inclusions /exclusions applied by profiling are displayed with yellow icons in the Backup Client:

File icons:

Included file
File included by filter
Excluded file

Folder icons:

Included folder
Folder included by filter
Excluded folder

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Microsoft NTFS Change Journal use

The Microsoft Windows NTFS Change Journal keeps track of every change made to files and/or directories on an NTFS volume from one point in time to another.

The Backup Client can use this Change Journal to determine the changes made to a volume since the last backup. This enables it to skip the process of scanning all files and directories before initiating the backup.

Tip: This is especially useful when backing up a large selection that would result in a lengthy scanning process.

*Example: If you have thousands of files selected for backup and would like to do a successive backup after having changed only one file, with **Use NTFS Change Journal for supported volumes** enabled, the Client will not need to scan through all the files to find the change and can start the backup immediately after obtaining the change record from the Change Journal instead.*

Note: This feature can only be used on NTFS-formatted drives and is therefore not supported on MAC or Linux.

Limitations

In the following instances, the Backup Client will *not* use the Change Journal and will revert to performing normal scans instead:

- If junction points are used (when a folder points to another folder on a different drive)
- If the backup selection changes
- If the Change Journal logs an error
- If the Change Journal wraps and overwrites entries

Enabling/disabling NTFS Change Journal use:

1. Click the **Options** button on the toolbar, and then click **Advanced Options**.
2. In the Backup Process area, select/clear the **Use NTFS Change Journal for supported volumes** check box.
3. Click **OK**.

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9. Plug-ins

Attix5 Pro Server Edition provides solutions for numerous databases and applications in the form of plug-ins to the Backup Client.

This User Manual includes instructions for the Email notification and System State plug-ins, as they are distributed with the SE Backup Client. Please refer to the Attix5 Pro Server Edition Plug-ins User Manual for detailed information on the other available plug-ins and settings.

Attix5 Pro Plug-ins currently available:

- MS Exchange 2000 | 2003 | 2007
- MS SQL Server | MS SQL 7
- MS SharePoint 2003 | 2007
- MS VSS Database
- Sybase ASE 12.5
- Lotus Domino 6.5 | 7
- Oracle 9i | 10g
- Email Notification
- Script
- System State Backup
- Single Mailbox Recovery (SMR)
- VMware:
  - 5 VMs
  - 20 VMs
  - 50 VMs
  - Plus (Unlimited VMs)
- Exchange Single Item Recover (SIR)
- Wbadmin

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Email Notification plug-in

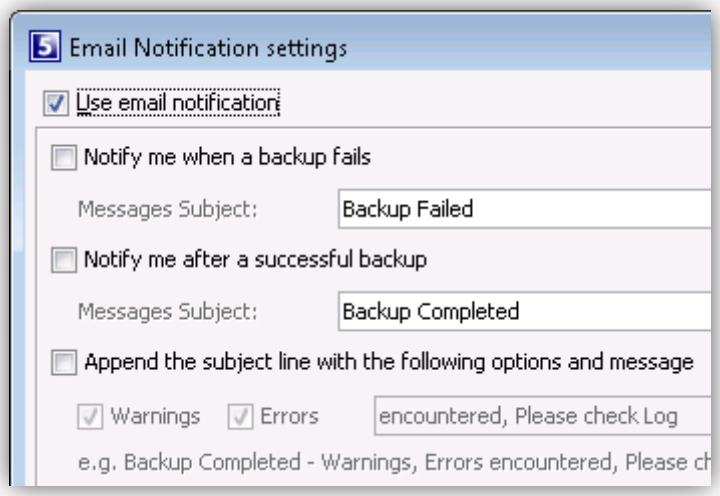
The Email Notification plug-in enables you to receive email notification on backup activity. You can configure the plug-in to send emails to specified email addresses, notifying the recipients of the status of backups.

Notes:

- *This plug-in has been included in SE installers since v4.2. If it is not installed, run the Plug-in Installer and select the **Email Notification** plug-in.*
- *The Plug-in installer will run automatically during the SE Client installation if located in the same folder as the Client MSI.*

To configure the email notification plug-in:

1. On the **Tools** menu, point to **Plug-ins**, and then click **Email Notification**.
2. Select the **Use email notification** check box to enable the plug-in.



3. Select the types of notifications to be emailed. The following options are available:
    - Notify me when a backup fails
    - Notify me after a successful backup
    - Append the subject line with the following options and message:
        - Warnings
        - Errors

Notes:

- *You can modify the Email subjects and content by clicking in the **Messages Subject** and **Warnings/Errors** boxes, and then editing the text.*
- *The Backup Account name is automatically included in the subject, e.g. "Backup Completed [Backup Account name]".*

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4. In the Mail Settings area, type **To** and **From** email addresses in the fields provided and supply the SMTP server address and authentication information if necessary.

   Tips:
   - *In the **SMTP Server** box, you can specify the SMTP Server name in isolation (e.g. mail.attix5.com) or you can include the port number (e.g. mail.attix5.com:80).*
   - *When no port is specified, 25 will be used by default.*

5. Click the **Test** button to verify that the settings are correct. A test email will be sent to the address specified in the **To** box and a message will appear confirming if the email was sent successfully. Click **OK** to close the message and return to the **Email Notification settings** dialog box.
6. Select the **Attach log file** check box to include a log file as an attachment.
7. In the Attachment settings area, select one of the following options:
   - **Summary, warnings and errors**
   - **Entire log file (as per Advanced Options log level setting)**
8. Click **Ok** to save the settings and close the **Email Notification settings** dialog box.

The email notification plug-in is now activated and configured and will start emailing reports during the next backup.

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System State Backup plug-in

The Attix5 Pro System State plug-in enables you to back up a collection of system-specific components as a unit to a target directory that is automatically included in the daily backup routine. These components include the following (depending on the operating system):

- Boot files, including system files, and all files protected by Windows File Protection (WFP)
- The registry.
- COM+ Class Registration database
- Active Directory
- SYSVOL directory

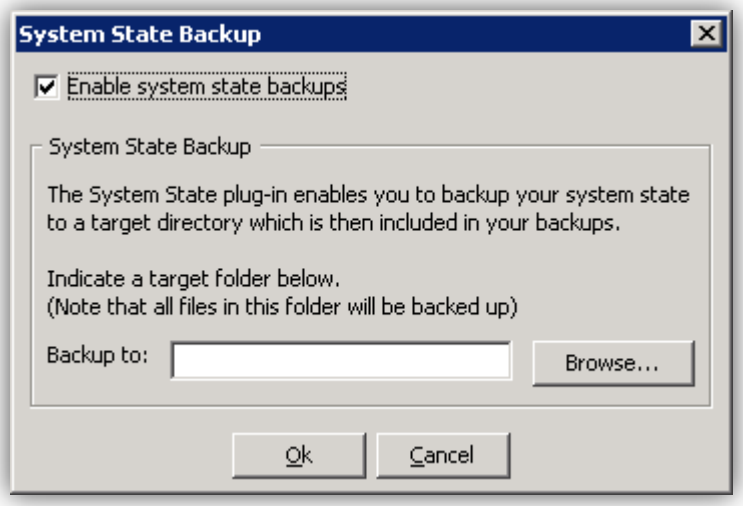
This plug-in is included in the SE installer. If it is not installed, run the Attix5 Pro Plug-in Installer and select **the System State Backup plug-in**. (For more information, please refer to the **Attix5 Pro Server Edition Plug-ins User Manual**.) After the installation, open the SE Client application window.

Note: Please note that this plug-in is only supported from MS Windows Server 2000 up to Windows Server 2003.

Installing and configuring the System State plug-in

To enable System State backups:

1. On the **Tools** menu, point to **Plug-ins**, and then click **System State**.
2. In the **System State Backup** dialog box that appears, select the **Enable System State backups** check box.


System State Backup
Enable system state backups
System State Backup
The System State plug-in enables you to backup your system state to a target directory which is then included in your backups.
Indicate a target folder below.
(Note that all files in this folder will be backed up)
Backup to:
Browse...
Ok
Cancel

3. A local target folder is required to create the System State backup. Type the path to a folder in the **Backup to** box or use the **Browse** button to specify it, and then click **OK**. If the target folder does not exist, the SE Client will display a message asking if it should create the folder. Click **Yes**. This folder will be included in the backup selection list automatically.

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The System State plug-in is initiated at the beginning of each backup and uses Windows Backup and Recovery tools to create the backup file. SE continues with the rest of the backup procedure after the System State backup has been saved in the specified target folder.

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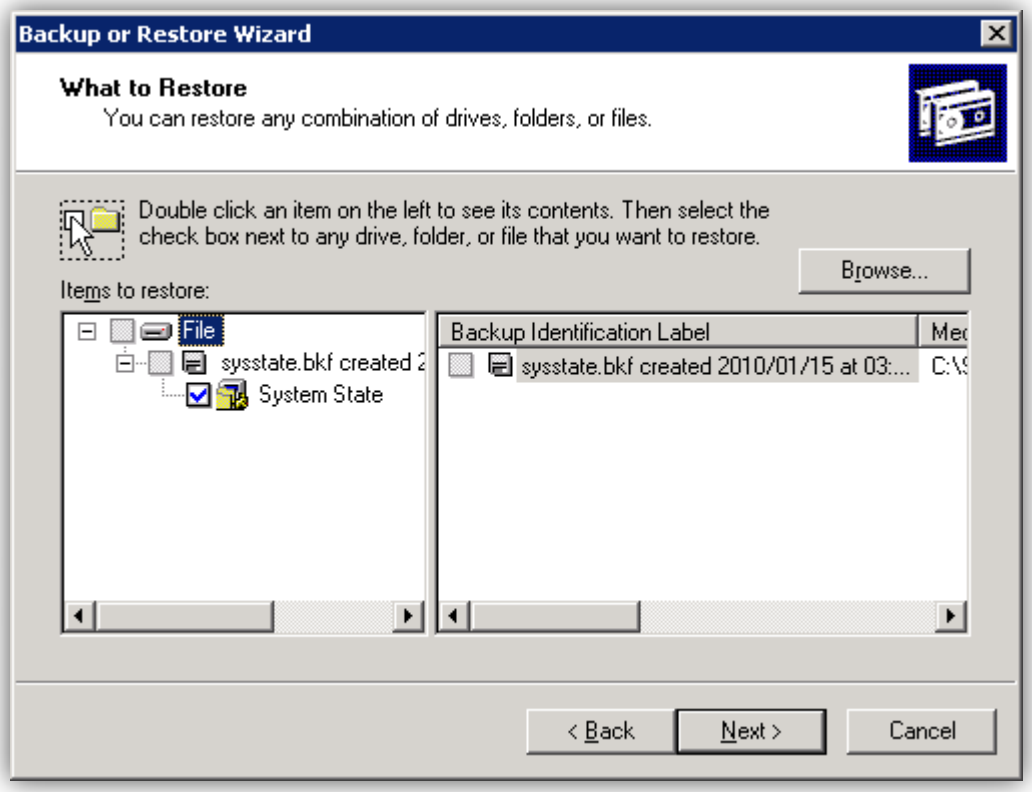
System State restore process

The method of restoring the System State differs depending on the destination server's operating system.

To restore the system state (complete recovery):

1. Click the **Restore** tab in the Backup Client.
2. Expand the backup date folder to restore from in the left-hand pane and restore the **sysstate.bkf** file located in the target folder (see step 3 in "To enable System State backups" [Windows Server 2000 and 2003] above).
3. Open the Windows Backup and Recovery application (**Start > All Programs > Accessories > System Tools > Backup**).
4. If the Restore Wizard does not appear by default, click **Restore Wizard** on the **Tools** menu. In the **Restore Wizard**, click **Next** to proceed to the **Backup or Restore** step.
5. Select **Restore files and settings**, and then click **Next**.
6. Browse to the restored **sysstate.bkf** file. (The default restore location is C:\SystemState.)
7. In the left-hand pane, expand **File > sysstate.bkf created**, and then select the **System State** check box.
8. Click **Next,** and then click **Finish** to complete the Restore Wizard.


Backup or Restore Wizard
What to Restore
You can restore any combination of drives, folders, or files.
Double click an item on the left to see its contents. Then select the check box next to any drive, folder, or file that you want to restore.
Browse...
Items to restore:
File
sysstate.bkf created 2
System State
Backup Identification Label
sysstate.bkf created 2010/01/15 at 03:...
< Back
Next >
Cancel

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10. Reference

Keyboard shortcuts and hotkeys

Keys	Action
F5	Refresh active window
SPACEBAR x1	Include selected file/folder
SPACEBAR x2	Exclude selected file/folder
SPACEBAR x3	Clear inclusion/exclusion
SHIFT+↑/↓	Select multiple files
ALT+Underlined letter on menu bar	Open the corresponding menu

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